

AD-A143 550

14819B LANCE MISSILE NUMBER 5340 ROUND NUMBER 396-APL
10 APRIL 1984(U) ARMY ELECTRONICS RESEARCH AND
DEVELOPMENT COMMAND WSMR NM ATM. D C KELLER APR 84
ERADCOM/ASL-DR-1339

1/1

UNCLASSIFIED

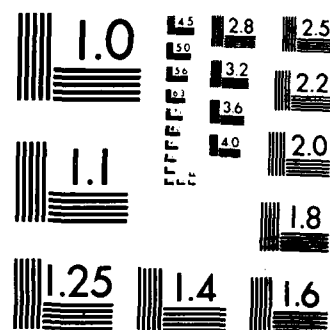
F/G 4/2

NL

END

FILED

DTIC



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

DR 1339
April 84

AD

AD-A143 550

METEOROLOGICAL DATA REPORT
14819B Lance
Missile Number 5340
Round Number 396-APL
10 April 1984

by

DONALD C. KELLER
Program Support Coordinator
Phone Number (505) 679-9568
AVN Number 349-9568

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

.....
ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

84 07 24 016

FILE COPY

DISPOSITION INSTRUCTIONS

Destroy this report when it is no longer needed. Do not return to the originator.

DISCLAIMER

The findings in this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

The citation of trade names and names of manufacturers in this report is not to be construed as official Government indorsement or approval of commercial products or services referenced herein.

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR-1339	2. GOVT ACCESSION NO. AD-7143554	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 14819B Lance, Missile Number 5340, Round Number 396-APL		5. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) White Sands Meteorological Team		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS		8. CONTRACT OR GRANT NUMBER(s) DA Task 1F665702D127-02
11. CONTROLLING OFFICE NAME AND ADDRESS US ARMY ELECTRONICS RESEARCH & DEVELOPMENT CMD Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico, 88002		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US ARMY ELECTRONICS RESEARCH AND DEVELOPMENT CMD Adelphi, MD 20783		12. REPORT DATE April 1984
		13. NUMBER OF PAGES 41
		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">This document has been approved for public release and its distribution is unlimited.</div>		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) Approved for public release; distribution unlimited.		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) <div style="text-align: right;">JUL 2 1984</div>		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 14819B Lance, Missile Number 5340, Round Number 396-APL are presented in tabular form.		

DD FORM 1473

EDITION OF 1 NOV 65 IS OBSOLETE

1

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

CONTENTS

	PAGE
INTRODUCTION - - - - -	1
DISCUSSION - - - - -	1
GENERAL AREA MAP - - - - -	2
TABLES:	
1. Surface Observation Taken at 1018 MST at LC-39 - - - - -	3
2. LC-36 Pilot-balloon Measured Wind Data at 0940 - - - - -	4
3. LC-36 Pilot-balloon Measured Wind Data at 1018 - - - - -	5
4. WSD Significant Level Data at 0600 MST - - - - -	6
5. WSD Upper Air Data at 0600 MST - - - - -	8
6. WSD Mandatory Levels at 0600 MST - - - - -	14
7. WSD Significant Level Data at 0950 MST - - - - -	15
8. WSD Upper Air Data at 0950 MST - - - - -	17
9. WSD Mandatory Levels at 0950 MST - - - - -	22
10. SMR Significant Level Data at 1000 MST - - - - -	23
11. SMR Upper Air Data at 1000 MST - - - - -	24
12. SMR Mandatory Levels at 1000 MST - - - - -	29
13. Jallen Significant Level Data at 0950 MST - - - - -	30
14. Jallen Upper Air Data at 0950 MST - - - - -	32
15. Jallen Mandatory Levels at 0950 MST - - - - -	38

INTRODUCTION

14819B Lance, Missile Number 5340, Round Number 396-APL, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 1018:26 MST, 10 April 1984. The scheduled launch time was 1000 MST.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-39 Met Site at T-0 minutes.

(2) Monitor of wind speed and direction from one anemometer was provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RAPTS T-9 PIBAL observations at:

SITE AND ALTITUDE

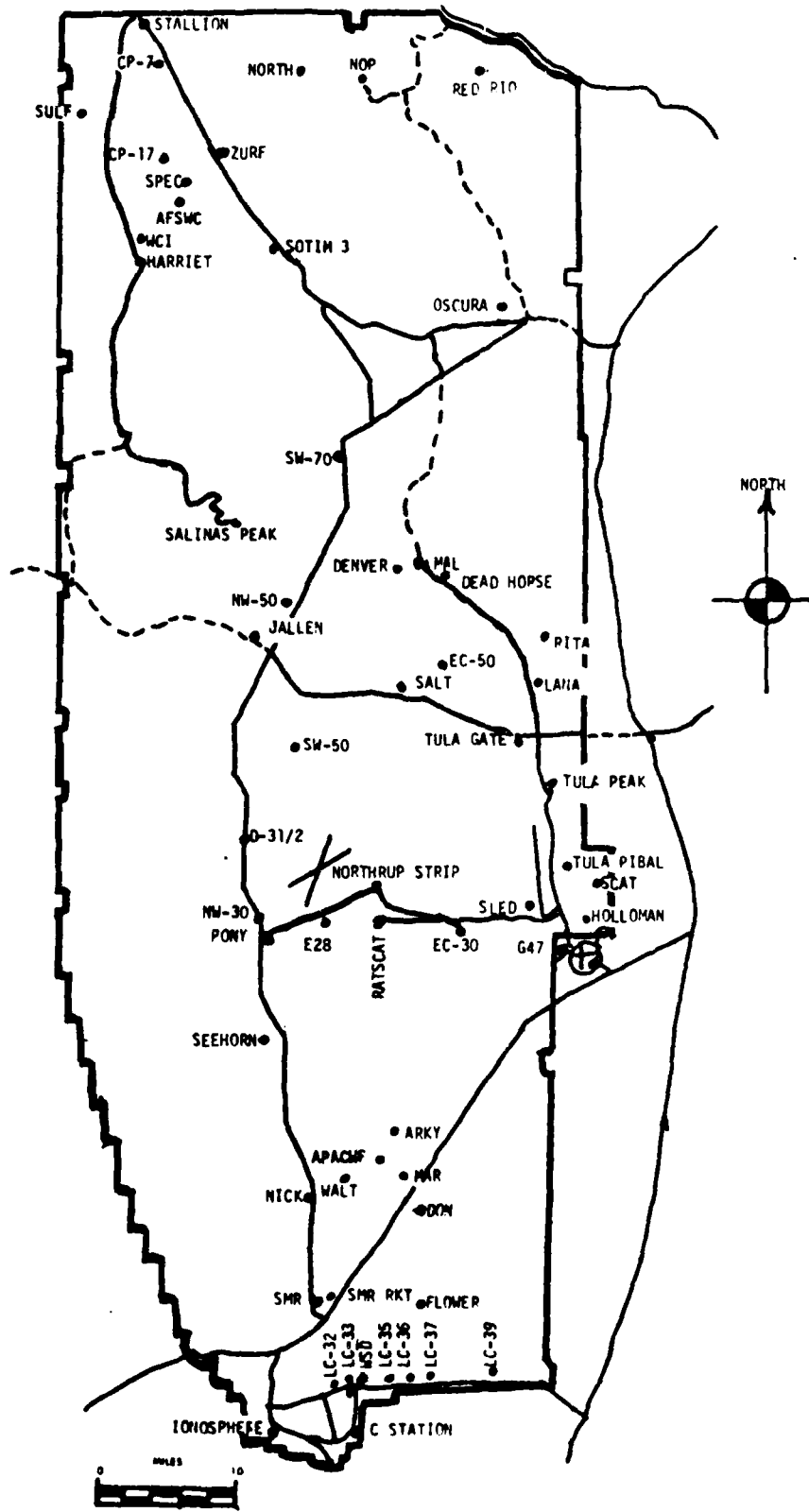
LC-36 10,000 ft AGL

(2) Air structure data (rawinsonde) were collected at the following Met Sites.

SITE AND TIME

WSD	0600 MST
WSD	0950 MST
SMR	1000 MST
Jallen	0950 MST

WSMR METEOROLOGICAL SITES



PROJECT SURFACE OBSERVATION

TABLE 1		STATION LC-39							
DATE 10 APR 84		X= 530,938.82 Y= 186,564.96 H= 4,063.75							
DAY MONTH YEAR									
TIME M S T	PRESSURE mbars	TEMPERATURE CF OC	DEW POINT OF OC	RELATIVE HUMIDITY %	DENSITY gm/m ³	DIRECTION degs Tn	WIND SPEED kts	CHARACTER kts	VISIBIL- ITY
1018	877.6	16.8	-5.8	21		030	07		50

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	TYPE	HGT	AMT	TYPE	HGT	
	CLEAR						

PSYCHROMETRIC COMPUTATION

TIME: MST	1018	
DRY BULB TEMP.	16.8	
WET BULB TEMP.	6.6	
WET BULB DEPR.	10.2	
DEW POINT	-5.8	
RELATIVE HUMID.	21	

WINDS ALOFT DATA

TABLE NUMBER 2

RELEASED FROM LC-36 DATE 10 Apr 84 TIME 0940 PST X MDT

UTM COORDINATES: X= 504,467.18 Y= 190,776.98 Z= 4040.71

METHOD OF DATA COLLECTION: S/T _____ D/T _____ T-9 X _____ PADS _____ RAWIN _____

HEIGHTS: METERS AGL FEET AGL x METERS MSL FEET MSL

HEIGHT	DIRECTION DEGREES	SPEED KTS
SFC	030	06
200	135	28
400	132	21
600	022	03
800	036	11
1000	355	14
1200	005	12
1400	360	11
1600	360	12
1800	001	11
2000	002	11
2200	004	11
2400	358	09
2600	356	11
2800	360	12
3000	346	13
3200	333	13
3400	326	13
3600	322	14
3800	321	14
4000	321	17
4200	314	17
4400	308	16
4600	303	18
4800	313	18
5000	306	25
5200	308	27
5400	312	28

[illegible][illegible]

✓

TABLE NUMBER 3

RELEASED FROM LC-36 DATE 10 Apr 84 TIME 1018 'ST x 'DT

UTM COORDINATES: X= 504,467.18 Y= 190,776.98 Z= 4,040.71

METHOD OF DATA COLLECTION: S/T _____ D/T _____ T-9 X _____ PAOB _____ ROWIN _____

HEIGHTS: METERS AGL _____ FEET AGL x METERS ISL _____ FEET ISL _____

HEIGHT	DIRECTION DEGREES	SPEED KTS
SFC	020	04
200	136	32
400	031	06
600	034	07
800	033	12
1000	041	13
1200	053	13
1400	056	14
1600	072	20
1800	341	14
2000	041	07
2200	007	10
2400	356	06
2600	010	07
2800	344	08
3000	327	10
3200	318	09
3400	320	09
3600	294	13
3800	287	08
4000	MSG	MSG
4200	MSG	MSG
4400	290	20
4600	293	19
4800	299	25
5000	294	32
5200	294	31
5400	303	33

HEIGHT	DIRECTION DEGREES	SPEED KTS
5600	310	33
5800	314	32
6000	322	31
6200	328	32
6400	332	33
6600	334	34
6800	328	34
7000	323	36
7200	320	35
7400	318	33
7600	316	37
7800	320	38
8000	320	37
8200	324	37
8400	325	38
8600	323	40
8800	324	39
9000	326	38
9200	321	39
9400	322	40
9600	323	41
9800	321	41
10000	318	42

[illegible]

GEODETIC COORDINATES
32.40743 LAT DEG
106.37133 LON DEG

SIGNIFICANT LEVEL DATA

101000202
WHITE SANDS

TABLE 4

STATION ALTITUDE 2029.00 FEET MSL
E. APR. 62
RECORDING NO. 102

PRESSURE MILLIBARS	GLOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
877.2	2049.0	6.2	-11.8	26.0
848.8	4246.3	7.4	-13.5	21.0
831.0	6039.4	7.5	-13.4	21.0
809.4	6157.2	5.5	-15.1	21.0
741.8	6482.6	2.0	-19.2	19.0
717.0	6580.5	.2	-20.7	19.0
708.5	6604.6	.5	-21.0	16.0
700.0	10012.4	.0	-22.1	17.0
677.2	10690.9	-1.5	-24.0	16.0
608.3	11223.7	1.2	-21.8	16.0
658.9	11603.4	1.7	-21.4	15.0
623.2	11077.3	1.4	-21.6	16.0
528.4	14596.6	-2.4	-21.2	24.0
554.8	14115.7	-4.1	-23.7	20.0
500.0	13778.3	-10.8	-28.8	21.0
600.0	24271.8	-24.6	-40.1	22.0
717.3	20659.9	-39.1	-50.9	27.0
700.0	20415.8	-42.6		
550.0	3609.1	-51.8		
23.5	37450.2	-57.7		
300.0	3933.7	-62.6		
183.4	4121.2	-65.8		
165.0	4307.0	-65.9		
160.4	4346.2	-63.4		
100.0	4030.3	-64.5		
135.2	4744.5	-66.3		
128.0	40408.9	-65.9		
126.0	40313.4	-64.3		
108.5	51340.5	-63.2		
107.7	50764.0	-60.7		
100.0	5070.3	-61.6		
91.4	5346.2	-61.3		
63.6	5716.9	-65.5		
74.5	50490.7	-61.9		
70.0	60750.9	-63.4		
67.0	61643.4	-64.5		
62.8	60277.9	-59.3		
50.0	60732.5	-56.7		
50.0	70541.5	-50.0		
20.0	87059.7	-47.6		

STATION ALTITUDE 1929.00 FEET MSL
 10 APR. 84 1600 HRS MST
 ASCENSION NO. 402

SIGNIFICANT LEVEL DATA
 10900-0202
 WHITE SANDS

TABLE 4 Cont'd

PRESSURE	GLOMETRIC	TEMPERATURE	REL. HUM.
MILLIBARS	ALTITUDE	AIR	PERCENT
MSL FEET	DEGREES	CENTIGRADE	
10.0	10901.4	-18.6	
7.4	10992.6	-18.5	

GEODETIC COORDINATES
 32.4063 LAT DEG
 106.37038 LON DEG

GEODETIC COORDINATES
32.40043 LAT DEG
106.37053 LON DEG

UPPER AIR DATA
1010020200
WHITE SANDS

STATION ALTITUDE 39-59.00 FEET MSL
1.0 AD 2.5
0600 HRS MJT
ASCENSION NO. 202

TABLE 5

GEOMETRIC ALTITUDE MILL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	REFLECT. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
19 50.0	877.2	6.6	11.8	1092.8	651.5	100.0	4.1	1.000255
4 50.0	876.3	6.5	11.9	1092.1	651.5	99.4	4.0	1.000255
45 50.0	863.7	7.4	13.4	1067.6	652.9	36.6	2.1	1.000248
50 50.0	844.9	7.5	13.6	1048.7	652.7	140.2	4.3	1.000244
55 50.0	829.4	6.5	14.6	1037.3	651.8	326.9	7.6	1.000240
60 50.0	814.1	5.7	14.9	1016.1	650.9	326.0	10.6	1.000236
65 50.0	799.1	5.0	15.7	1000.0	650.0	329.4	13.5	1.000232
70 50.0	784.2	4.2	16.5	984.1	649.1	329.7	16.2	1.000227
75 50.0	769.6	3.5	17.4	968.5	648.2	329.4	18.9	1.000223
80 50.0	755.3	2.7	18.3	953.1	647.3	328.0	21.4	1.000220
85 50.0	741.3	2.0	19.2	938.0	646.4	326.7	23.9	1.000216
90 50.0	727.4	1.3	20.0	923.9	645.2	323.8	25.4	1.000212
95 50.0	713.8	.5	20.9	907.7	644.4	320.9	26.6	1.000208
100 50.0	700.3	.0	22.0	892.5	644.1	316.5	27.8	1.000204
105 50.0	687.1	-.3	23.2	878.6	643.0	312.2	29.2	1.000201
110 50.0	674.1	-.6	24.2	861.1	643.4	312.1	32.2	1.000197
115 50.0	661.5	1.6	21.5	838.3	645.9	312.5	35.3	1.000192
120 50.0	649.1	1.9	21.4	827.4	646.0	314.1	38.5	1.000189
125 50.0	636.9	1.5	21.5	807.3	645.9	315.5	41.7	1.000185
130 50.0	625.0	1.4	21.6	792.5	645.7	315.6	43.9	1.000182
135 50.0	613.3	.5	21.4	780.6	644.5	315.2	46.1	1.000179
140 50.0	601.7	-.9	21.2	769.4	643.0	313.9	47.2	1.000177
145 50.0	590.2	-2.2	21.4	758.4	641.5	312.6	48.3	1.000175
150 50.0	579.1	-2.9	21.8	745.9	640.7	312.0	48.2	1.000172
155 50.0	568.1	-3.4	22.6	733.2	640.0	311.5	47.9	1.000168
160 50.0	557.3	-4.0	23.5	720.8	639.4	311.7	48.7	1.000165
165 50.0	546.5	-5.1	24.4	709.8	638.1	315.0	49.4	1.000163
170 50.0	536.0	-6.5	25.4	698.4	636.5	316.4	49.7	1.000160
175 50.0	525.6	-7.0	26.3	689.1	635.0	317.4	49.2	1.000157
180 50.0	515.4	-8.8	27.3	679.0	633.5	317.5	47.4	1.000155
185 50.0	505.5	-10.1	28.6	669.1	632.0	317.5	47.0	1.000152
190 50.0	495.5	-11.4	29.2	659.1	630.5	317.2	47.8	1.000150
195 50.0	485.5	-12.6	30.3	649.0	628.9	316.2	47.0	1.000147
200 50.0	475.8	-13.9	31.3	639.0	627.4	316.5	47.5	1.000145
205 50.0	466.2	-15.1	32.3	629.3	625.9	316.5	46.4	1.000142
210 50.0	456.7	-16.4	33.3	619.6	624.4	316.8	44.8	1.000140
215 50.0	447.7	-17.6	34.4	610.2	622.8	319.1	44.1	1.000136
220 50.0	438.7	-18.9	35.4	600.9	621.3	322.5	44.0	1.000136
225 50.0	429.8	-20.1	36.4	591.7	619.7	325.0	44.6	1.000133
230 50.0	421.2	-21.4	37.5	582.7	618.4	326.9	45.5	1.000131

UPPER AIR DATA
1010020202
WHITE SANDS
TABLE 5 Cont'd

STATION ALTITUDE 3909.00 FEET MSL
10 APR 64
J60N HRS M3T
ACCUSSION NO. 202

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE M-JL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS		WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
235 0.0	412.7	-22.7	-30.5	21.9	573.9	616.6		327.2	46.9	1.000129
240 0.0	404.4	-23.9	-29.5	22.0	565.2	615.1		326.6	48.4	1.000127
245 0.0	396.1	-25.2	-40.5	22.2	556.4	613.5		326.5	49.9	1.000125
250 0.0	387.7	-26.6	-41.5	22.7	547.5	611.8		326.7	51.5	1.000123
255 0.0	379.4	-27.9	-42.5	23.1	538.9	610.1		326.9	53.5	1.000121
260 0.0	371.4	-29.3	-43.5	23.6	530.4	608.5		327.2	55.7	1.000119
265 0.0	363.5	-30.6	-44.5	24.1	522.0	606.8		327.4	57.2	1.000117
270 0.0	355.7	-31.9	-45.5	24.5	513.7	605.1		327.6	58.6	1.000115
275 0.0	348.2	-33.3	-46.5	25.0	505.6	603.4		327.5	59.3	1.000113
280 0.0	340.8	-34.6	-47.5	25.5	497.7	601.7		327.2	59.9	1.000111
285 0.0	333.5	-36.0	-48.5	25.9	489.8	600.0		327.2	59.9	1.000110
290 0.0	326.4	-37.3	-49.5	26.4	482.2	598.3		327.1	59.9	1.000108
295 0.0	319.5	-38.7	-50.6	26.9	474.6	596.6		327.0	58.9	1.000106
300 0.0	312.5	-40.0	-54.4	19.7**	467.0	594.8		328.7	58.1	1.000104
305 0.0	305.6	-41.4	-61.7	8.9**	459.5	593.0		329.8	58.3	1.000102
310 0.0	298.8	-42.6			451.9	591.3		330.9	59.0	1.000101
315 0.0	292.1	-44.0			443.9	589.8		331.9	60.6	1.000099
320 0.0	285.4	-45.1			436.1	588.3		332.5	62.0	1.000097
325 0.0	279.0	-46.3			428.3	586.8		332.9	62.8	1.000095
330 0.0	272.6	-47.4			420.8	585.3		333.1	63.4	1.000094
335 0.0	266.5	-48.5			413.3	583.8		332.6	63.6	1.000092
340 0.0	260.4	-49.7			406.1	582.3		332.0	63.7	1.000090
345 0.0	254.5	-50.9			398.9	580.8		331.6	63.6	1.000089
350 0.0	248.7	-52.1			391.9	579.2		331.1	63.5	1.000087
355 0.0	242.9	-53.3			384.9	577.6		331.9	63.0	1.000086
360 0.0	237.2	-54.6			378.0	576.0		332.5	62.6	1.000084
365 0.0	231.6	-55.8			371.2	574.3		333.8	60.4	1.000083
370 0.0	226.2	-57.1			364.6	572.7		335.3	58.1	1.000081
375 0.0	220.8	-58.4			357.9	571.1		335.4	56.4	1.000080
380 0.0	215.5	-59.5			351.1	569.7		335.4	50.4	1.000078
385 0.0	210.3	-60.4			344.3	568.3		331.8	48.3	1.000077
390 0.0	205.1	-61.5			337.8	566.8		327.4	46.5	1.000075
395 0.0	200.3	-62.5			331.3	565.4		322.6	47.5	1.000074
400 0.0	195.4	-63.5			324.7	564.1		317.9	49.0	1.000072
405 0.0	190.9	-64.4			318.1	562.9		315.1	50.1	1.000071
410 0.0	186.3	-65.3			311.7	561.7		312.9	51.1	1.000069
415 0.0	181.4	-65.5			304.8	561.0		310.8	51.8	1.000068
420 0.0	176.9	-65.8			297.3	560.9		308.9	52.1	1.000066
425 0.0	172.0	-65.9			290.0	560.9		306.7	52.1	1.000065
430 0.0	168.3	-65.9			282.9	560.9		303.4	50.2	1.000063

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3039.00 FEET "SL
1L AF - F
J600 WRS MST
ASCENSION NO. 302

UPPER AIR DATA
1010020202
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 5 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
435 0.0	164.2	-65.4		275.3	561.5	299.9	49.9	1.000041
440 0.0	160.1	-63.4		266.0	564.2	295.7	48.0	1.000059
445 0.0	156.2	-63.5		260.0	563.6	291.2	46.3	1.000056
450 0.0	152.4	-64.2		254.1	563.1	289.4	46.5	1.000057
455 0.0	148.7	-64.7		248.4	562.5	287.9	47.0	1.000055
460 0.0	145.0	-65.1		242.8	561.9	288.6	47.9	1.000054
465 0.0	141.4	-65.5		237.3	561.4	289.4	48.9	1.000053
470 0.0	138.0	-66.0		231.9	560.8	291.5	49.2	1.000052
475 0.0	134.6	-66.3		226.6	560.4	293.6	49.6	1.000050
480 0.0	131.2	-66.1		220.8	560.6	294.7	48.4	1.000049
485 0.0	128.0	-65.9		215.1	560.9	295.0	47.2	1.000048
490 0.0	124.9	-64.2		209.2	563.1	293.3	46.3	1.000046
495 0.0	121.8	-64.1		202.9	563.3	291.7	45.5	1.000045
500 0.0	118.8	-63.9		197.8	563.6	290.3	44.5	1.000044
505 0.0	115.9	-63.7		192.8	563.8	288.8	43.5	1.000043
510 0.0	113.1	-63.5		187.9	564.1	286.6	39.9	1.000042
515 0.0	110.3	-63.3		183.2	564.3	283.7	36.1	1.000041
520 0.0	107.7	-62.6		178.3	565.1	281.6	32.8	1.000040
525 0.0	105.0	-61.4		172.8	566.9	279.4	29.7	1.000038
530 0.0	102.5	-61.0		168.3	567.5	280.3	28.6	1.000037
535 0.0	100.0	-61.6		164.7	566.6	282.8	28.6	1.000037
540 0.0	97.6	-61.5		160.7	566.7	284.2	28.4	1.000036
545 0.0	95.3	-61.4		156.8	566.9	284.3	28.1	1.000035
550 0.0	93.0	-61.4		152.9	567.0	284.4	27.7	1.000034
555 0.0	90.7	-61.7		149.4	566.6	281.3	26.2	1.000033
560 0.0	88.5	-62.6		146.6	565.0	277.7	24.5	1.000033
565 0.0	86.4	-64.0		143.8	563.4	272.1	22.8	1.000032
570 0.0	84.2	-65.1		141.1	561.9	266.1	20.6	1.000031
575 0.0	82.2	-65.0		137.5	562.1	258.0	18.7	1.000031
580 0.0	80.2	-64.2		133.7	563.1	253.0	16.0	1.000030
585 0.0	78.2	-63.4		130.0	564.2	245.7	13.0	1.000029
590 0.0	76.3	-62.7		126.3	565.2	238.5	10.2	1.000028
595 0.0	74.5	-61.9		122.8	566.2	233.4	7.3	1.000027
600 0.0	72.7	-62.2		120.2	565.4	225.4	6.7	1.000026
605 0.0	70.9	-63.1		117.6	564.6	230.8	2.9	1.000026
610 0.0	69.2	-63.7		115.0	563.8	252.5	1.2	1.000026
615 0.0	67.5	-64.3		112.6	563.0	337.4	.7	1.000025
620 0.0	65.9	-63.1		109.2	564.6	17.0	1.8	1.000024
625 0.0	64.3	-61.1		105.5	567.2	34.8	3.0	1.000024
630 0.0	62.7	-59.3		102.1	569.7	47.4	4.2	1.000023

UPPER AIR DATA
1010020202
WHITE SANDS

STATION ALTITUDE 3089.00 FEET MSL
10 APR 68
0600 HRS MST

ASCENSION NO. 202

GEODETIC COORDINATES
32.40043 LAT DEG
106.37333 LON DEG

TABLE 5 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE'S CENTIGRADE	RFL. NUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
6350.0	61.2	-59.0		90.6	570.1	54.1	5.4	1.000072
6400.0	59.6	-58.7		97.1	570.5	56.1	5.9	1.000072
6450.0	58.3	-58.5		94.7	570.8	57.8	6.4	1.000021
6500.0	57.0	-58.2		92.3	571.2	56.7	6.2	1.000021
6550.0	55.6	-57.9		90.0	571.6	54.5	5.8	1.000020
6600.0	54.3	-57.6		87.8	571.9	60.8	5.6	1.000020
6650.0	53.0	-57.4		85.6	572.3	90.8	6.0	1.000019
6700.0	51.7	-57.1		83.4	572.6	96.6	7.0	1.000019
6750.0	50.5	-56.8		81.3	573.0	108.4	9.1	1.000018
6800.0	49.3	-56.5		79.3	573.4	115.5	11.4	1.000018
6850.0	48.2	-56.3		77.4	573.7	116.9	13.5	1.000017
6900.0	47.1	-56.0		75.5	574.1	114.3	15.2	1.000017
6950.0	46.0	-55.7		73.7	574.4	112.2	17.0	1.000016
7000.0	44.9	-55.5		71.8	574.8	108.9	16.8	1.000016
7050.0	43.9	-55.2		70.1	575.1	104.5	15.8	1.000016
7100.0	42.8	-54.9		68.4	575.5	99.5	14.9	1.000015
7150.0	41.8	-54.7		66.7	575.8	94.3	12.7	1.000015
7200.0	40.9	-54.4		65.1	576.2	86.9	10.5	1.000014
7250.0	39.9	-54.1		63.5	576.5	76.4	8.6	1.000014
7300.0	39.0	-53.9		61.9	576.9	66.8	8.3	1.000014
7350.0	38.1	-53.6		60.4	577.2	56.8	8.2	1.000013
7400.0	37.2	-53.3		58.9	577.6	50.4	8.2	1.000013
7450.0	36.3	-53.1		57.5	577.9	51.2	8.2	1.000013
7500.0	35.5	-52.8		56.1	578.3	52.1	8.2	1.000012
7550.0	34.7	-52.5		54.7	578.6	57.4	8.6	1.000012
7600.0	33.8	-52.3		53.4	579.0	65.7	9.4	1.000012
7650.0	33.1	-52.0		52.1	579.3	71.7	10.3	1.000012
7700.0	32.3	-51.7		50.8	579.7	71.0	10.7	1.000011
7750.0	31.5	-51.5		49.6	580.0	68.5	10.8	1.000011
7800.0	30.6	-51.2		48.3	580.4	66.1	11.0	1.000011
7850.0	29.8	-50.9		47.2	580.7	65.5	11.3	1.000011
7900.0	29.4	-50.7		46.0	581.0	65.0	11.6	1.000010
7950.0	28.7	-50.5		45.0	581.2	64.6	12.0	1.000010
8000.0	28.1	-50.4		43.9	581.5	66.2	13.8	1.000010
8050.0	27.6	-50.2		42.9	581.7	67.5	15.5	1.000010
8100.0	26.8	-50.0		41.9	582.0	68.5	17.3	1.000009
8150.0	26.2	-49.8		40.9	582.2	69.8	17.3	1.000009
8200.0	25.6	-49.6		39.9	582.5	71.2	17.4	1.000009
8250.0	25.0	-49.4		39.0	582.7	72.5	17.5	1.000009
8300.0	24.5	-49.2		38.0	583.0	74.0	17.3	1.000008

UPPER AIR DATA

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

STATION ALTITUDE 3939.00 FEET MSL
10 APR 8
0600 HRS MST
ASCENSION NO. 102

1010020202
WHITE SANDS

TABLE 5 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
835.0.0	23.9	-49.0		37.1	583.2	75.5	17.2	1.000008
940.0.0	23.3	-48.9		36.3	583.4	77.1	17.1	1.000008
945.0.0	22.8	-48.7		35.4	583.7	76.5	18.0	1.000008
950.0.0	22.3	-48.5		34.6	583.9	75.8	18.9	1.000008
955.0.0	21.8	-48.3		33.8	584.2	75.3	19.8	1.000008
960.0.0	21.3	-48.1		33.0	584.4	73.6	19.9	1.000007
965.0.0	20.8	-47.9		32.2	584.7	71.9	20.0	1.000007
970.0.0	20.3	-47.7		31.4	584.9	70.1	20.1	1.000007
975.0.0	19.9	-47.5		30.7	585.2	69.7	19.5	1.000007
980.0.0	19.4	-47.4		30.0	585.6	69.3	18.7	1.000007
985.0.0	19.0	-46.9		29.3	585.9	69.0	18.0	1.000007
990.0.0	18.6	-46.6		28.6	586.3	69.2	16.5	1.000006
995.0.0	18.2	-46.4		27.9	586.7	69.9	14.7	1.000006
1000.0.0	17.8	-46.1		27.3	587.1	70.7	12.9	1.000006
935.0.0	17.4	-45.6		26.6	587.4	71.9	12.0	1.000006
940.0.0	17.0	-45.5		26.0	587.8	73.3	12.7	1.000006
945.0.0	16.6	-45.2		25.4	588.2	74.5	13.5	1.000006
950.0.0	16.2	-44.9		24.8	588.6	75.9	14.3	1.000006
955.0.0	15.9	-44.6		24.2	588.9	80.9	15.6	1.000005
960.0.0	15.5	-44.3		23.6	589.3	85.1	16.9	1.000005
965.0.0	15.2	-44.0		23.1	589.7	88.7	18.4	1.000005
970.0.0	14.9	-43.7		22.6	590.1	99.5	18.8	1.000005
975.0.0	14.5	-43.4		22.0	590.4	112.0	19.8	1.000005
980.0.0	14.2	-43.2		21.5	590.8	122.0	21.6	1.000005
985.0.0	13.9	-42.9		21.0	591.2	129.0	23.5	1.000005
990.0.0	13.6	-42.6		20.5	591.6	131.2	25.1	1.000005
995.0.0	13.3	-42.3		20.0	591.9	133.1	26.7	1.000004
970.0.0	13.0	-42.0		19.6	592.3	134.6	27.5	1.000004
975.0.0	12.7	-41.7		19.1	592.7	135.0	24.5	1.000004
980.0.0	12.4	-41.4		18.7	593.1	135.5	21.4	1.000004
985.0.0	12.1	-41.1		18.2	593.4	136.2	19.4	1.000004
990.0.0	11.9	-40.8		17.8	593.8	130.2	15.9	1.000004
995.0.0	11.6	-40.5		17.4	594.2	121.3	13.7	1.000004
1000.0.0	11.4	-40.2		17.0	594.5	109.2	11.9	1.000004
1005.0.0	11.1	-40.0		16.6	594.9	94.7	11.4	1.000004
1010.0.0	10.9	-39.7		16.2	595.3	80.7	12.0	1.000004
1015.0.0	10.6	-39.4		15.8	595.7	68.6	13.3	1.000004
1020.0.0	10.4	-39.1		15.4	596.0	53.6	13.5	1.000003
1025.0.0	10.1	-38.8		15.1	596.4	23.0	12.9	1.000003
1030.0.0	9.9	-38.6		14.7	596.6	357.1	15.7	1.000003

STATION ALTITUDE 3989.00 FEET MSL 10 APR. 84 0600 HRS MST ASCENSION NO. 202				UPPER AIR DATA 1010020202 WHITE SANDS TABLE 5 Cont'd				GEODETIC COORDINATES 32.40043 LAT DEG 106.37033 LON DEG			
GEOMETRIC ALTITUDE MSL-00.0	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION			
103500.0	9.7	-38.6		14.4	596.7	341.2	20.6	1.000003			
104000.0	9.5	-38.6		14.1	596.7	331.8	26.4	1.000003			
104500.0	9.3	-38.6		13.8	596.7			1.000003			
105000.0	9.1	-38.6		13.5	596.7			1.000003			
105500.0	8.9	-38.6		13.2	596.7			1.000003			
106000.0	8.7	-38.6		12.9	596.7			1.000003			
106500.0	8.5	-38.5		12.6	596.7			1.000003			
107000.0	8.3	-38.5		12.4	596.7			1.000003			
107500.0	8.1	-38.5		12.1	596.7			1.000003			
108000.0	8.0	-38.5		11.8	596.7			1.000003			
108500.0	7.8	-38.5		11.6	596.7			1.000003			
109000.0	7.6	-38.5		11.3	596.8			1.000003			
109500.0	7.5	-38.5		11.1	596.8			1.000002			

STATION ALTITUDE 5009.00 FEET MSL
 10 APR 60 R.
 ASCENSION NO. 202

MANDATORY LEVELS
 1010020202
 WHITE SANDS
 TABLE 6

GEODETIC COORDINATES
 32.60043 LAT DEG
 106.37033 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
				DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4836.	7.5	21.	350.1	3.3
800.0	6465.	5.0	21.	329.2	13.3
750.0	8184.	2.4	19.	327.3	22.3
700.0	10003.	.0	17.	316.5	27.9
650.0	11951.	1.6	16.	314.0	38.2
600.0	14767.	-1.1	20.	313.7	47.3
550.0	16527.	-4.7	20.	314.4	49.2
500.0	18752.	-10.8	21.	317.3	47.4
450.0	21376.	-17.3	21.	318.4	44.1
400.0	24332.	-24.6	22.	326.5	49.2
350.0	27368.	-33.0	25.	327.5	59.2
300.0	30955.	-42.6		330.7	58.7
250.0	34814.	-51.8		331.2	63.5
200.0	39429.	-62.6		322.4	47.5
175.0	42113.	-65.8		308.2	52.2
150.0	45207.	-64.5		288.5	46.8
125.0	48937.	-64.2		293.5	46.4
100.0	53345.	-61.6		282.7	28.6
80.0	57854.	-64.1		252.8	15.9
70.0	60552.	-63.4		236.3	2.1
60.0	63686.	-58.8		55.7	5.8
50.0	67467.	-36.7		111.3	9.9
40.0	72128.	-54.2		79.0	8.9
30.0	76728.	-50.9		65.5	11.3
25.0	82135.	-49.4		72.4	17.5
20.0	86952.	-47.6		69.8	19.7
15.0	93239.	-43.9		90.5	18.7
10.0	102276.	-38.6		7.3	14.1

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

SIGNIFICANT LEVEL DATA

1010020203
WHITE SANDS

TABLE 7

STATION ALTITUDE 3909.00 FEET MSL
10 APR. 54
ASCENSION NO. 203

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DPWPOINT CENTIGRADE	
978.7 3989.0	15.6	-10.9	15.0
971.1 4229.5	13.0	-10.1	19.0
950.0 4902.9	11.1	-11.0	20.0
905.5 4362.4	6.3	-14.4	21.0
756.1 8055.2	2.9	-17.2	21.0
700.0 10093.2	.0		
650.7 12327.0	3.6	-14.6	25.0
623.3 13171.2	2.1	-15.4	26.0
579.6 15132.7	-1.4	-19.3	24.0
527.3 17541.2	-6.5	-24.6	22.0
500.0 18699.3	-9.6	-27.3	22.0
459.7 20477.4	-12.8	-31.5	19.0
454.1 21321.1	-15.1	-31.5	23.0
409.0 23944.0	-22.8	-36.2	28.0
400.0 24471.2	-23.5	-36.8	28.0
312.6 37172.3	-38.9	-49.5	31.0
300.0 31096.1	-40.7		
250.0 35097.9	-50.7		
206.1 39145.7	-61.1		
200.0 39759.8	-61.6		
171.7 42831.9	-67.5		
162.8 43691.6	-66.4		
153.8 45036.5	-62.9		
150.0 45543.9	-63.3		
145.5 46159.0	-64.8		
133.1 47954.4	-64.1		
121.3 49061.7	-61.3		
105.9 52479.5	-64.4		
100.0 53756.5	-64.1		
97.7 54227.9	-62.9		
90.0 55590.6	-64.3		
88.4 56254.4	-62.4		
87.6 57302.4	-62.2		
82.1 57763.7	-59.8		
76.1 59372.9	-58.8		
70.0 61350.2	-62.4		
67.6 61706.5	-58.9		
65.8 62326.4	-59.3		
60.7 64124.5	-61.1		
51.9 67433.6	-55.4		

STATION ALTITUDE 3929.00 FEET MSL
 10 APR 54 0950 HRS MST
 ASCENSION NO. 203

SIGNIFICANT LEVEL DATA
 1010070203
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 7 Cont'd

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR	DEWPOINT	
	DEGREES	CENTIGRADE	
50.0 68026.6	-55.9		
49.0 68526.4	-56.9		
46.1 70074.0	-53.7		
43.0 71213.6	-51.2		
42.3 71560.0	-51.6		
31.4 77951.7	-52.1		
30.0 78930.9	-51.0		
24.0 83782.9	-46.5		
21.6 86171.2	-45.8		

STATION ALTITUDE 3959.00 FEET MSL
10 APR. 64
ASCENSION NO. 203

UPPER AIR DATA
1000202J3
WHITE SANDS
TABLE 8

GEODETIC COORDINATES
32.40043 LAT DEG
106.37733 LONG DEG

GLOMEIRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
39 9.0	876.7	15.0	-10.9	15.0	1058.9	662.4	30.0	8.0	1.000248
40 0.0	876.4	15.5	-10.6	15.2	1058.9	662.2	29.7	7.9	1.000248
45 0.0	862.6	12.2	-10.4	19.4	1051.6	658.5	12.6	7.2	1.000247
50 0.0	847.0	9.8	-11.2	20.1	1037.0	656.8	354.0	7.3	1.000243
55 0.0	831.5	9.1	-12.4	20.4	1025.0	654.9	337.3	8.0	1.000240
60 0.0	816.3	7.5	-13.5	20.8	1012.3	653.0	324.3	9.3	1.000276
65 0.0	801.4	6.0	-14.6	21.0	999.1	651.2	319.5	10.0	1.000232
70 0.0	786.5	5.0	-15.5	21.0	984.1	650.0	330.7	8.2	1.000228
75 0.0	772.0	4.0	-16.3	21.0	969.5	648.9	338.2	7.9	1.000224
80 0.0	757.7	3.0	-17.1	21.0	955.0	647.7	340.1	8.5	1.000221
85 0.0	743.5	2.5	-20.6	16.4**	939.8	646.7	337.9	8.5	1.000215
90 0.0	729.6	1.6	-25.4	11.3**	924.8	645.8	335.2	8.5	1.000210
95 0.0	715.9	.9	-32.4	6.1**	910.0	644.9	335.1	8.0	1.000205
100 0.0	702.5	.1	-50.2	1.0**	895.4	644.0	334.7	7.8	1.000200
105 0.0	689.3	.3	-74.0	5.3**	876.6	644.8	321.7	32.8	1.000197
110 0.0	676.4	1.7	-24.9	11.7**	857.0	646.0	320.9	50.8	1.000195
115 0.0	663.8	2.6	-19.1	16.2**	837.9	647.2	321.4	60.8	1.000193
120 0.0	651.4	3.5	-14.6	24.7**	810.1	648.4	323.2	46.8	1.000192
125 1.0	639.2	3.0	-14.9	25.4	805.5	647.7	324.3	38.1	1.000189
130 0.0	627.3	2.3	-15.2	25.9	793.4	647.0	322.5	38.8	1.000186
135 0.0	615.6	1.5	-16.0	25.7	779.9	646.0	320.9	38.8	1.000183
140 0.0	604.0	.6	-17.0	25.2	767.8	644.9	319.3	38.2	1.000179
145 0.0	592.7	.3	-18.0	24.6	755.9	643.8	317.0	37.7	1.000176
150 0.0	581.5	-1.2	-19.0	24.1	744.2	642.8	316.7	37.4	1.000173
155 0.0	570.5	-2.2	-20.1	23.7	732.8	641.6	316.7	37.5	1.000170
160 0.0	559.6	-3.2	-21.2	23.3	721.7	640.3	316.1	37.9	1.000167
165 0.0	548.9	-4.3	-22.3	22.9	710.7	639.0	316.4	39.2	1.000164
170 0.0	538.4	-5.4	-23.4	22.4	700.0	637.7	317.0	40.8	1.000161
175 0.0	528.1	-6.4	-24.5	22.0	689.4	636.5	317.5	43.1	1.000158
180 0.0	517.9	-7.5	-25.5	22.0	678.9	635.1	317.9	45.6	1.000155
185 0.0	507.9	-8.7	-26.5	22.0	668.7	633.7	317.4	42.9	1.000153
190 0.0	498.0	-9.8	-27.5	21.6	658.5	632.4	317.3	39.9	1.000150
195 0.0	488.2	-10.8	-28.9	21.9	648.1	631.1	317.8	36.1	1.000147
200 0.0	478.7	-11.8	-30.2	19.9	637.9	629.9	318.4	34.6	1.000145
205 0.0	469.3	-12.9	-31.5	19.1	627.9	628.6	319.8	36.9	1.000142
210 0.0	460.0	-14.2	-31.5	21.5	618.6	627.0	320.7	38.4	1.000140
215 0.0	450.0	-15.0	-31.8	23.3	609.4	625.3	321.5	39.6	1.000138
220 0.0	441.7	-17.1	-32.7	24.3	600.7	623.5	322.4	40.0	1.000136
225 1.0	432.3	-18.0	-33.5	25.2	592.0	621.7	323.2	40.4	1.000134
230 0.0	424.0	-20.0	-34.4	26.2	583.4	619.9	322.8	41.9	1.000132

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3009.00 FEET MSL
 10 APR 34
 ASCENSION NO. 203

UPPER AIR DATA
 171000Z203
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

TABLE 8 Cont'd

GLOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES C	TEMPERATURE DWP POINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
						KNOTS	KNOTS			
235 0.0	415.5	-21.5	-35.4	77.2	575.0	618.1	322.5	322.5	43.2	1.000170
240 0.0	407.1	-22.9	-36.3	78.0	566.5	616.4	322.1	322.1	44.3	1.000128
245 0.0	398.7	-23.7	-37.0	78.0	556.6	615.4	321.9	321.9	44.3	1.000126
250 0.0	390.2	-25.0	-38.1	78.3	547.8	613.7	321.7	321.7	42.8	1.000123
255 0.0	381.9	-26.4	-39.2	78.6	539.1	612.0	321.6	321.6	41.7	1.000121
260 0.0	373.8	-27.7	-40.3	78.8	530.5	610.4	322.2	322.2	40.8	1.000119
265 0.0	365.9	-29.1	-41.4	79.1	522.1	608.7	322.2	322.2	41.5	1.000117
270 0.0	358.1	-30.4	-42.5	79.3	513.9	607.0	321.7	321.7	41.8	1.000115
275 0.0	350.5	-31.7	-43.6	79.6	505.8	605.3	320.0	320.0	41.2	1.000113
280 0.0	343.1	-33.1	-44.7	79.9	497.8	603.7	318.7	318.7	40.5	1.000112
285 0.0	335.8	-34.4	-45.8	80.1	490.0	602.0	317.5	317.5	39.8	1.000110
290 0.0	328.7	-35.8	-46.9	80.4	482.3	600.3	317.5	317.5	40.5	1.000108
295 0.0	321.7	-37.1	-48.0	80.6	474.8	598.6	317.7	317.7	41.6	1.000106
300 0.0	314.9	-38.4	-49.2	80.9	467.4	596.9	318.4	318.4	43.4	1.000105
305 0.0	308.1	-39.5	-50.3	80.0**	459.4	595.5	319.7	319.7	45.2	1.000103
310 0.0	301.5	-40.5	-51.6	80.0**	451.2	594.2	320.7	320.7	46.8	1.000101
315 0.0	294.6	-41.7	-52.8	80.0**	443.4	592.7	320.7	320.7	47.8	1.000099
320 0.0	287.9	-43.0	-54.0	80.0**	435.7	591.1	321.0	321.0	48.7	1.000097
325 0.0	281.4	-44.2	-55.2	80.0**	428.2	589.5	321.0	321.0	49.6	1.000095
330 0.0	275.1	-45.5	-56.5	80.0**	420.9	587.9	320.9	320.9	50.6	1.000094
335 0.0	268.9	-46.7	-57.8	80.0**	413.7	586.2	320.9	320.9	51.5	1.000092
340 0.0	262.8	-48.0	-59.1	80.0**	406.6	584.6	320.8	320.8	52.4	1.000091
345 0.0	256.9	-49.2	-60.4	80.0**	399.6	583.0	320.6	320.6	52.5	1.000089
350 0.0	251.1	-50.5	-61.7	80.0**	392.8	581.4	320.4	320.4	52.5	1.000087
355 0.0	245.5	-51.7	-63.0	80.0**	385.9	579.7	319.7	319.7	52.4	1.000086
360 0.0	239.5	-53.0	-64.3	80.0**	379.0	578.0	319.0	319.0	52.2	1.000084
365 0.0	233.8	-54.3	-65.6	80.0**	372.2	576.3	318.4	318.4	52.0	1.000083
370 0.0	228.1	-55.6	-66.9	80.0**	365.6	574.6	317.9	317.9	51.7	1.000081
375 0.0	222.9	-56.9	-68.2	80.0**	359.1	572.9	317.9	317.9	50.8	1.000080
380 0.0	217.7	-58.2	-69.5	80.0**	352.7	571.2	317.5	317.5	49.8	1.000079
385 0.0	212.5	-59.5	-70.8	80.0**	346.5	569.5	316.5	316.5	48.1	1.000077
390 0.0	207.5	-60.7	-72.1	80.0**	340.3	567.8	315.6	315.6	45.9	1.000076
395 0.0	202.6	-61.9	-73.4	80.0**	333.2	566.9	314.8	314.8	42.2	1.000074
400 0.0	197.6	-63.2	-74.7	80.0**	326.2	566.0	313.4	313.4	38.6	1.000073
405 0.0	192.8	-64.5	-76.0	80.0**	319.6	564.7	312.5	312.5	35.7	1.000071
410 0.0	188.1	-65.8	-77.3	80.0**	313.4	563.4	312.2	312.2	34.4	1.000070
415 0.0	183.4	-67.1	-78.6	80.0**	306.9	562.1	295.9	295.9	38.1	1.000068
420 0.0	178.7	-68.4	-79.9	80.0**	300.8	560.8	290.3	290.3	42.7	1.000067
425 0.0	174.0	-69.7	-81.2	80.0**	294.8	559.5	290.3	290.3	45.2	1.000066
430 0.0	169.3	-71.0	-82.5	80.0**	288.2	558.9	291.3	291.3	47.4	1.000064

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

UPPER AIR DATA
1010020Z03
WHITE SANDS

STATION ALTITUDE 1059.00 FEET MSL
10 APR 64
ASCENDING NO. 20

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 8 Cont'd

GLOMERIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	KNOTS	DIRECTION DEGREES(TN)	SPEED KNOTS	
435.00.0	146.0	-46.6			260.3	559.6		293.4	47.6	1.000042
440.00.0	141.9	-46.1			272.4	560.6		296.0	47.1	1.000041
445.00.0	138.0	-44.5			263.8	562.7		297.1	46.7	1.000059
450.00.0	134.1	-43.0			255.4	564.7		297.2	46.2	1.000057
455.00.0	130.3	-43.3			249.5	564.4		297.2	46.1	1.000056
460.00.0	126.7	-44.4			244.7	562.9		297.3	46.7	1.000055
465.00.0	123.1	-44.7			239.0	562.5		297.3	47.2	1.000053
470.00.0	119.6	-44.5			233.0	562.8		297.2	47.5	1.000052
475.00.0	116.1	-44.3			227.0	563.0		296.3	45.6	1.000051
480.00.0	112.8	-44.0			221.2	563.4		294.3	41.3	1.000049
485.00.0	109.6	-43.3			215.1	564.4		291.3	36.3	1.000048
490.00.0	106.4	-42.5			209.1	565.4		286.7	30.8	1.000047
495.00.0	103.4	-41.8			203.3	566.4		283.1	27.7	1.000045
500.00.0	100.4	-41.5			198.1	566.8		281.4	26.6	1.000044
505.00.0	97.4	-42.1			193.8	566.0		280.3	26.0	1.000043
510.00.0	94.6	-42.7			189.7	565.2		280.4	26.4	1.000042
515.00.0	91.8	-43.3			185.6	564.3		280.9	26.8	1.000041
520.00.0	89.1	-43.9			181.6	563.5		278.7	26.3	1.000040
525.00.0	86.4	-44.4			177.6	562.9		276.0	25.8	1.000040
530.00.0	83.8	-44.3			173.1	563.0		272.8	25.3	1.000039
535.00.0	81.3	-44.2			168.8	563.2		268.9	24.7	1.000038
540.00.0	78.8	-43.5			164.2	564.1		267.4	24.7	1.000037
545.00.0	76.4	-43.1			159.9	564.6		270.4	25.8	1.000036
550.00.0	74.0	-43.6			156.3	564.0		273.5	26.6	1.000035
555.00.0	71.8	-44.0			152.8	563.4		275.9	27.3	1.000034
560.00.0	69.5	-43.7			148.9	563.8		277.7	27.4	1.000033
565.00.0	67.3	-42.4			144.3	565.6		277.7	25.3	1.000032
570.00.0	65.2	-42.3			140.8	565.7		277.4	22.8	1.000031
575.00.0	63.2	-41.5			136.9	566.8		276.7	19.1	1.000030
580.00.0	61.2	-39.6			132.4	569.2		275.5	15.3	1.000029
585.00.0	59.4	-39.3			129.1	569.7		271.8	12.2	1.000029
590.00.0	57.3	-39.0			125.8	570.1		265.0	9.5	1.000028
595.00.0	55.3	-39.2			122.0	569.9		254.2	7.3	1.000027
600.00.0	53.7	-40.4			120.5	568.5		239.0	5.9	1.000027
605.00.0	51.9	-41.0			118.2	567.1		217.0	5.1	1.000026
610.00.0	50.2	-42.3			115.9	565.7		171.2	3.8	1.000026
615.00.0	48.5	-43.0			111.9	568.8		125.8	5.5	1.000025
620.00.0	46.9	-49.1			108.8	570.0		107.7	8.0	1.000024
625.00.0	45.2	-49.5			106.4	569.5		98.3	10.5	1.000024
630.00.0	43.7	-49.0			104.1	568.8		98.2	11.2	1.000023

STATION ALTITUDE 3059.00 FEET MSL
 TO APR. 31, 1950 HMS M.J.
 ASCENSION NO. 203

UPPER AIR DATA
 1010202UR
 WHITE SANDS

TABLE 8 Cont'd

GEODEIC COORDINATES
 32.40043 LAT DEG
 176.87033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	WIND DIRECTION CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ AFTER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION DEGREES(TN)	SPEED KNOTS	
635 0.0	62.7	-60.5			101.8	568.1	105.3	10.2	1.000023
640 0.0	60.7	-61.0			99.6	567.5	116.2	8.9	1.000022
645 0.0	59.2	-61.4			97.0	568.2	135.7	7.6	1.000022
650 0.0	57.6	-59.5			94.3	569.4	159.3	7.4	1.000021
655 0.0	56.4	-58.6			91.6	570.7	171.2	7.5	1.000020
660 0.0	55.1	-57.7			89.1	571.9	183.9	7.8	1.000020
665 0.0	53.8	-56.8			86.6	573.1	188.9	7.8	1.000019
670 0.0	52.5	-55.8			84.2	574.3	188.5	7.1	1.000019
675 0.0	51.3	-55.6			82.1	574.7	188.0	6.4	1.000018
680 0.0	50.1	-55.9			80.3	574.2	189.4	4.0	1.000018
685 0.0	48.9	-56.8			78.7	573.0	201.0	1.1	1.000018
690 0.0	47.7	-56.1			76.6	573.9	8.2	.9	1.000017
695 0.0	46.6	-55.4			74.6	574.9	22.5	2.2	1.000017
700 0.0	45.5	-54.7			72.6	575.8	26.1	3.5	1.000016
705 0.0	44.5	-54.0			70.7	576.8	37.7	4.1	1.000016
710 0.0	43.4	-52.2			68.5	579.1	46.4	6.9	1.000015
715 0.0	42.4	-51.5			66.7	580.0	48.8	6.0	1.000015
720 0.0	41.5	-51.6			65.2	579.8	48.3	7.4	1.000015
725 0.0	40.5	-51.7			63.7	579.8	49.6	9.9	1.000014
730 0.0	39.6	-51.7			62.2	579.7	57.8	10.4	1.000014
735 0.0	38.6	-51.8			60.8	579.7	63.9	12.1	1.000014
740 0.0	37.8	-51.8			59.4	579.6	68.1	13.4	1.000013
745 0.0	36.9	-51.8			58.1	579.6	71.2	14.1	1.000013
750 0.0	36.0	-51.9			56.7	579.5	74.0	14.7	1.000013
755 0.0	35.4	-51.9			55.4	579.5	79.0	15.5	1.000012
760 0.0	34.4	-51.9			54.2	579.4	86.1	16.4	1.000012
765 0.0	33.6	-52.0			52.9	579.4	92.2	17.6	1.000012
770 0.0	32.8	-52.0			51.7	579.3	94.4	18.0	1.000012
775 0.0	32.1	-52.1			50.5	579.3	94.6	17.9	1.000011
780 0.0	31.3	-52.0			49.4	579.3	94.9	17.7	1.000011
785 0.0	30.6	-51.5			48.1	580.0	92.0	16.5	1.000011
790 0.0	29.9	-50.9			46.9	580.7	87.5	15.1	1.000010
795 0.0	29.2	-50.3			45.7	581.3	82.2	13.8	1.000010
800 0.0	28.6	-50.0			44.6	581.9	83.4	13.9	1.000010
805 0.0	27.9	-49.5			43.5	582.6	87.0	14.6	1.000010
810 0.0	27.3	-49.1			42.4	583.2	92.0	15.5	1.000009
815 0.0	26.7	-48.6			41.4	583.8	91.4	15.1	1.000009
820 0.0	26.1	-48.4			40.3	584.4	88.9	14.3	1.000009
825 0.0	25.5	-47.7			39.3	585.0	86.1	13.5	1.000009
830 0.0	24.9	-47.1			38.4	585.6	81.8	14.3	1.000009

STATION ALTITUDE 3929.00 FEET MSL
10 APR. 84
ASCENSION NO. 203

UPPER AIR DATA
1010020Z03
WHITE SANDS
TABLE 8 Cont'd

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
82500.0	24.3	-46.8		37.4	586.2	77.8	15.6	1.000008
84000.0	23.8	-46.4		36.5	586.6	74.4	16.9	1.000008
84500.0	23.2	-46.3		35.7	586.8			1.000008
85000.0	22.7	-46.1		34.8	587.0			1.000008
85500.0	22.2	-46.0		34.0	587.2			1.000008
86000.0	21.7	-45.8		33.3	587.4			1.000007

STATION ALTITUDE 5989.00 FEET MSL
10 APR. 84 0950 HRS MST
ASCENSION NO. 203

VANDATORY LEVELS
1010020203
WHITE SANDS

GEODEIC COORDINATES
32.6004° LAT DEG
106.37033° LON DEG

TABLE 9

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4899.	11.1	-11.0	20.	357.7	7.2
800.0	6541.	5.9	-14.7	21.	320.3	9.8
750.0	8227.	2.6	-18.8	19.00	339.2	8.5
700.0	10063.	.0			328.5	12.1
650.0	12043.	3.6	-14.6	25.	323.4	45.4
600.0	14162.	.3	-17.4	25.	318.7	38.0
550.0	16432.	-4.2	-22.2	23.	316.4	19.0
500.0	18873.	-9.6	-27.7	22.	317.4	40.6
450.0	21514.	-15.8	-31.0	23.	321.6	19.7
400.0	24381.	-23.5	-34.8	28.	321.8	44.6
350.0	27531.	-31.9	-43.7	20.	319.8	41.1
300.0	31036.	-40.7			320.4	47.1
250.0	35042.	-50.7			320.3	52.5
200.0	39664.	-61.6			314.4	40.4
175.0	42345.	-66.8			290.1	45.0
150.0	45422.	-63.3			297.2	46.1
125.0	49088.	-62.2			284.4	28.7
100.0	53592.	-64.1			267.1	24.5
50.0	58107.	-59.5			274.0	13.5
70.0	60842.	-62.4			169.0	3.8
60.0	63799.	-60.9			123.0	8.3
50.0	67774.	-55.9			169.3	4.1
40.0	72476.	-51.7			51.6	9.5
30.0	78594.	-51.0			88.6	15.4
20.0	82518.	-47.3			83.0	13.9

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LONG DEG

SIGNIFICANT LEVEL DATA
1010060016
C M R

TABLE 10

STATION ALTITUDE 3997.3 FEET MSL
10 APR. 94
ASCENSION NO. 16

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
979.3	3997.3	15.2	-3.6	27.0
874.4	4120.4	12.8	-12.4	16.0
850.0	4896.5	10.5	-13.5	17.0
762.7	7830.2	2.8	-17.9	20.0
733.5	8851.9	1.9	-19.9	18.0
720.1	9341.2	3.1	-21.0	15.0
708.7	9755.8	3.2	-20.9	15.0
700.0	10096.1	5.8	-18.8	15.0
668.0	11352.1	5.2	-15.3	21.0
619.4	17944.0	-7.7	-27.8	19.0
600.0	18913.2	-10.1	-29.3	19.0
463.0	20846.9	-14.2	-32.7	19.0
400.0	24425.3	-24.4	-38.3	26.0
347.0	27772.2	-33.4	-44.3	32.0
313.9	30622.2	-39.1	-50.0	30.0
300.0	31079.8	-41.2		
250.0	35070.8	-51.2		
204.7	39247.0	-62.1		
200.0	39719.1	-63.0		
175.5	42347.2	-65.6		
161.7	43979.1	-66.9		
153.0	45089.9	-63.4		
150.0	45400.2	-64.2		
140.5	46873.8	-66.3		
126.7	48874.4	-65.3		
116.8	50513.9	-63.8		
109.5	51819.3	-63.8		
100.0	57663.7	-61.9		
82.6	57547.7	-64.0		
75.7	50344.4	-58.6		
70.0	60943.1	-62.7		
63.8	67839.3	-60.8		
59.0	64446.0	-60.8		
50.0	67892.8	-56.3		
42.8	71159.7	-54.5		
40.4	72395.2	-53.1		
30.0	78745.2	-51.9		
20.0	87563.2	-45.6		
17.1	91056.4	-40.8		
14.5	94777.7	-40.3		

STATION ALTITUDE 3997.70 FEET MSL
 10 APR. 64 1000 HRS MST
 ASCENSION NO. 16

UPPER AIR DATA
 1010040016
 S M R

GEODETIC COORDINATES
 32.46034 LAT DEG
 106.42307 LON DEG

TABLE 11

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
3997.3	878.3	15.2	-3.6	27.0	1059.0	662.2	30.0	8.0	1.000257
4000.0	878.2	15.1	-3.6	26.8	1059.1	662.1	30.0	8.0	1.000257
4500.0	862.4	11.7	-12.9	16.5	1053.7	657.8	31.1	8.2	1.000245
5000.0	846.7	10.2	-13.6	17.1	1039.9	656.1	32.1	8.4	1.000242
5500.0	831.2	8.9	-14.3	17.6	1025.5	654.6	33.0	8.6	1.000238
6000.0	815.9	7.6	-15.1	18.1	1011.5	653.1	25.7	6.3	1.000234
6500.0	800.9	6.3	-15.8	18.6	997.6	651.5	1	4.3	1.000231
7000.0	786.2	5.0	-16.6	19.2	983.9	650.0	308.4	5.7	1.000227
7500.0	771.7	3.7	-17.4	19.7	970.4	648.4	298.6	10.4	1.000224
8000.0	757.4	2.7	-18.2	19.7	956.0	647.2	297.2	15.4	1.000220
8500.0	743.3	2.2	-19.2	18.7	939.7	646.7	299.0	20.5	1.000216
9000.0	729.4	2.3	-20.2	17.1	922.0	646.7	302.0	25.0	1.000212
9500.0	715.8	3.1	-20.9	15.0	907.0	647.7	308.8	28.5	1.000207
10000.0	702.5	5.0	-19.4	15.0	879.1	650.0	315.8	31.3	1.000202
10500.0	689.5	5.6	-17.5	16.9	861.0	650.7	323.9	33.5	1.000199
11000.0	676.8	5.4	-16.2	19.3	845.7	650.5	327.9	34.4	1.000197
11500.0	664.2	4.9	-15.6	20.9	831.3	650.0	330.7	34.7	1.000194
12000.0	651.7	3.9	-16.5	20.7	818.5	648.8	331.9	35.9	1.000191
12500.0	639.4	3.0	-17.5	20.5	806.0	647.5	332.4	37.0	1.000187
13000.0	627.3	2.0	-18.4	20.3	793.5	646.5	330.9	38.2	1.000184
13500.0	615.4	1.0	-19.4	20.0	781.4	645.3	328.6	39.2	1.000181
14000.0	603.8	0	-20.3	19.8	769.4	644.1	325.7	40.3	1.000178
14500.0	592.4	-1.0	-21.3	19.6	757.5	643.0	322.2	41.1	1.000174
15000.0	581.2	-1.9	-22.2	19.3	746.0	641.8	319.2	41.7	1.000171
15500.0	570.2	-2.9	-23.2	19.1	734.5	640.6	318.5	42.1	1.000169
16000.0	559.4	-3.9	-24.1	18.9	723.3	639.4	318.7	42.5	1.000166
16500.0	548.8	-4.9	-25.1	18.7	712.3	638.3	319.2	44.5	1.000163
17000.0	538.5	-5.9	-26.0	18.4	701.4	637.1	319.1	45.7	1.000160
17500.0	528.3	-6.8	-27.0	18.2	690.7	635.9	318.5	46.2	1.000157
18000.0	518.3	-7.8	-27.9	18.1	680.2	634.7	317.9	45.1	1.000155
18500.0	508.2	-9.1	-28.6	18.6	670.1	633.2	317.2	43.2	1.000152
19000.0	498.3	-10.3	-29.4	19.0	660.1	631.8	318.0	41.2	1.000150
19500.0	488.5	-11.3	-30.3	19.0	649.7	630.5	319.5	39.2	1.000147
20000.0	478.9	-12.4	-31.2	19.0	639.5	629.2	321.6	38.5	1.000145
20500.0	469.4	-13.5	-32.1	19.0	629.5	627.9	323.8	38.3	1.000143
21000.0	460.1	-14.6	-32.9	19.3	619.8	626.5	324.5	39.2	1.000140
21500.0	450.8	-15.1	-33.6	20.3	610.7	624.7	324.5	40.4	1.000138
22000.0	441.7	-17.5	-34.3	21.3	601.7	623.0	324.6	41.3	1.000136
22500.0	432.7	-18.9	-35.1	22.2	592.8	621.3	324.7	42.0	1.000134
23000.0	424.0	-20.3	-35.9	23.2	584.1	619.5	323.8	42.3	1.000132

STATION ALTITUDE 3997.70 FEET MSL
10 APR. 84 1000 HRS MST
ASCENSION NO. 16

UPPER AIR DATA
1010060016
C M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 11 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
					KNOTS	FEET			
23500.0	415.4	-21.8	24.2	575.5	617.8	322.6	322.6	42.4	1.000130
24000.0	407.0	-23.2	25.2	567.1	616.0	322.0	322.0	43.4	1.000128
24500.0	398.7	-24.6	26.1	558.7	614.2	321.5	321.5	44.6	1.000126
25000.0	390.4	-25.9	27.0	550.3	612.6	322.4	322.4	45.2	1.000124
25500.0	382.2	-27.3	27.9	541.6	610.9	323.1	323.1	45.5	1.000122
26000.0	374.1	-28.6	28.8	532.9	609.2	323.1	323.1	44.8	1.000120
26500.0	366.3	-30.0	29.7	524.6	607.6	322.3	322.3	44.2	1.000118
27000.0	358.6	-31.3	30.6	516.5	605.9	320.8	320.8	43.8	1.000116
27500.0	351.0	-32.7	31.5	508.4	604.2	319.0	319.0	43.5	1.000114
28000.0	343.6	-34.0	31.8	500.3	602.5	317.4	317.4	43.3	1.000112
28500.0	336.1	-35.2	31.4	492.1	601.0	317.0	317.0	43.3	1.000110
29000.0	328.8	-36.5	30.9	483.9	599.4	316.7	316.7	43.8	1.000108
29500.0	321.7	-37.7	30.5	476.0	597.8	316.8	316.8	44.9	1.000106
30000.0	314.8	-38.9	30.1	468.1	596.2	317.8	317.8	46.7	1.000105
30500.0	307.8	-40.3	17.1**	460.0	594.9	318.9	318.9	48.1	1.000103
31000.0	301.1	-41.0	2.4**	451.8	593.5	320.0	320.0	49.0	1.000101
31500.0	294.3	-42.3		444.0	592.0	320.6	320.6	50.0	1.000099
32000.0	287.7	-43.5		436.4	590.4	321.0	321.0	51.2	1.000097
32500.0	281.2	-44.8		428.8	588.8	320.8	320.8	52.1	1.000096
33000.0	274.8	-46.0		421.5	587.1	320.5	320.5	52.9	1.000094
33500.0	268.6	-47.3		414.2	585.5	320.1	320.1	53.0	1.000092
34000.0	262.5	-48.5		407.1	583.9	319.8	319.8	53.1	1.000091
34500.0	256.6	-49.8		400.2	582.3	319.6	319.6	53.7	1.000089
35000.0	250.8	-51.0		393.3	580.6	319.5	319.5	54.3	1.000088
35500.0	244.9	-52.3		386.4	578.9	319.4	319.4	54.9	1.000086
36000.0	239.1	-53.6		379.5	577.2	319.3	319.3	55.6	1.000085
36500.0	233.5	-54.9		372.7	575.5	319.0	319.0	55.9	1.000083
37000.0	227.9	-56.2		364.1	573.8	318.4	318.4	56.1	1.000082
37500.0	222.6	-57.5		359.5	572.0	317.7	317.7	56.0	1.000080
38000.0	217.3	-58.8		353.2	570.3	317.0	317.0	55.8	1.000079
38500.0	212.2	-60.2		347.0	568.6	316.2	316.2	54.5	1.000077
39000.0	207.1	-61.5		340.9	566.8	315.4	315.4	52.5	1.000076
39500.0	202.2	-62.6		334.5	565.3	313.4	313.4	49.4	1.000074
40000.0	197.2	-63.4		327.5	564.2	310.5	310.5	45.7	1.000073
40500.0	192.4	-64.1		320.5	563.3	305.8	305.8	43.3	1.000071
41000.0	187.7	-64.8		313.7	562.4	300.1	300.1	41.6	1.000070
41500.0	183.1	-65.4		307.0	561.5	297.1	297.1	42.9	1.000068
42000.0	178.6	-66.1		300.5	560.5	294.0	294.0	44.3	1.000067
42500.0	174.2	-66.6		293.8	559.9	295.7	295.7	45.4	1.000065
43000.0	169.8	-66.7		287.5	559.7	295.6	295.6	46.2	1.000064

STATION ALTITUDE 3997.10 FEET "SL
10 APR. 54
ASCENSION NO. 16

UPPER AIR DATA
1010000016
C M R

GEODETIC COORDINATES
32.49034 LAT DEG
106.42307 LON DEG

TABLE 11 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	RFL.HUM. PERCENT	DENSITY GRAMS/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
43500.0	165.6	-66.8		279.6	559.6	295.0	45.2	1.000042
44000.0	161.5	-66.8		272.7	559.6	294.5	46.1	1.000041
44500.0	157.6	-65.3		264.0	561.7	293.4	45.4	1.000059
45000.0	153.7	-63.7		255.6	563.8	292.4	45.7	1.000057
45500.0	149.9	-64.2		250.0	563.1	293.1	46.5	1.000056
46000.0	146.2	-65.0		244.8	562.0	293.8	45.3	1.000055
46500.0	142.6	-65.8		239.7	561.0	294.8	44.6	1.000053
47000.0	139.1	-66.2		234.2	560.4	295.8	42.6	1.000052
47500.0	135.7	-66.0		228.2	560.8	295.4	39.3	1.000051
48000.0	132.4	-65.7		222.3	561.1	294.0	35.4	1.000050
48500.0	129.1	-65.5		216.5	561.4	290.1	30.4	1.000048
49000.0	125.9	-65.2		210.9	561.8	282.0	24.9	1.000047
49500.0	122.8	-64.7		205.3	562.4	271.1	20.7	1.000046
50000.0	119.8	-64.3		199.8	563.0	258.5	19.1	1.000045
50500.0	116.9	-63.8		194.5	563.7	247.1	17.0	1.000043
51000.0	114.0	-63.8		189.7	563.7	250.1	17.7	1.000042
51500.0	111.2	-63.8		185.1	563.7	252.9	19.5	1.000041
52000.0	108.5	-63.6		180.4	563.9	258.7	20.2	1.000040
52500.0	105.9	-63.1		175.5	564.6	263.6	22.2	1.000039
53000.0	103.3	-62.6		170.9	565.3	266.5	23.9	1.000038
53500.0	100.8	-62.1		166.6	566.0	269.0	25.6	1.000037
54000.0	98.4	-62.1		162.3	566.0	272.2	27.1	1.000036
54500.0	96.0	-62.4		158.5	565.6	276.4	28.4	1.000035
55000.0	93.6	-62.6		154.9	565.3	280.2	29.8	1.000035
55500.0	91.4	-62.9		151.4	564.9	284.0	31.1	1.000034
56000.0	89.1	-63.2		147.9	564.5	287.4	32.5	1.000033
56500.0	87.0	-63.4		144.5	564.2	288.7	32.4	1.000032
57000.0	84.9	-63.7		141.1	563.8	288.0	31.4	1.000031
57500.0	82.8	-64.0		137.9	563.4	288.7	29.6	1.000031
58000.0	80.8	-62.6		133.7	565.2	285.9	23.2	1.000030
58500.0	78.8	-61.1		129.5	567.3	281.0	16.9	1.000029
59000.0	76.9	-59.6		125.5	569.3	271.6	10.9	1.000028
59500.0	75.1	-59.0		122.2	570.1	244.3	5.7	1.000027
60000.0	73.3	-60.3		119.9	568.4	179.5	5.0	1.000027
60500.0	71.5	-61.6		117.8	566.7	161.3	5.5	1.000026
61000.0	69.8	-62.6		115.5	565.2	147.2	6.4	1.000026
61500.0	68.1	-62.1		112.5	565.9	140.8	5.4	1.000025
62000.0	66.5	-61.6		109.5	566.6	136.8	5.6	1.000024
62500.0	64.9	-61.1		106.6	567.2	132.8	4.9	1.000024
63000.0	63.3	-60.8		103.8	567.7	141.2	4.7	1.000023

STATION ALTITUDE 3997.30 FEET MSL
10 APR. 84 1000 HRS MST
ASCENSION NO. 16

UPPER AIR DATA
1010060015
5 M R

TABLE 11 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
63500.0	61.8	-60.8		101.4	567.7	150.1	4.6	1.000023
64000.0	60.3	-59.8		99.9	567.7	156.2	4.7	1.000022
64500.0	58.8	-60.7		96.5	567.8	160.7	4.9	1.000021
65000.0	57.4	-60.1		93.9	568.7	164.0	4.9	1.000021
65500.0	56.1	-59.4		91.4	569.5	167.2	3.9	1.000020
66000.0	54.7	-58.8		89.0	570.4	172.4	3.0	1.000020
66500.0	53.4	-58.1		86.6	571.3	178.3	2.8	1.000019
67000.0	52.2	-57.5		84.3	572.2	184.4	3.0	1.000019
67500.0	50.9	-56.8		82.0	573.0	185.6	3.2	1.000018
68000.0	49.7	-56.2		79.9	573.8	172.9	3.4	1.000018
68500.0	48.6	-56.0		77.9	574.1	162.1	3.7	1.000017
69000.0	47.4	-55.7		76.0	574.5	146.7	3.2	1.000017
69500.0	46.3	-55.4		74.1	574.9	119.4	2.6	1.000016
70000.0	45.2	-55.1		72.3	575.2	88.2	3.1	1.000016
70500.0	44.2	-54.9		70.5	575.6	72.4	5.7	1.000016
71000.0	43.1	-54.6		68.7	575.9	66.7	8.4	1.000015
71500.0	42.1	-54.1		67.0	576.5	68.1	13.7	1.000015
72000.0	41.1	-53.5		65.3	577.3	71.6	12.6	1.000015
72500.0	40.2	-53.1		63.5	577.9	74.3	14.4	1.000014
73000.0	39.3	-53.0		62.1	578.1	80.9	14.7	1.000014
73500.0	38.3	-52.9		60.6	578.2	87.1	15.2	1.000014
74000.0	37.5	-52.8		59.2	578.3	90.7	15.6	1.000013
74500.0	36.6	-52.7		57.8	578.4	89.5	15.6	1.000013
75000.0	35.7	-52.6		56.5	578.6	88.8	15.6	1.000013
75500.0	34.9	-52.5		55.1	578.7	87.8	15.7	1.000012
76000.0	34.1	-52.4		53.8	578.8	86.5	15.0	1.000012
76500.0	33.3	-52.3		52.6	579.9	85.7	16.2	1.000012
77000.0	32.6	-52.2		51.3	579.0	83.7	15.2	1.000011
77500.0	31.8	-52.1		50.1	579.2	81.2	15.2	1.000011
78000.0	31.1	-52.0		48.9	579.3	79.7	15.3	1.000011
78500.0	30.3	-51.9		47.8	579.4	78.7	16.2	1.000011
79000.0	29.7	-51.7		46.6	579.7	76.7	16.1	1.000010
79500.0	29.0	-51.6		45.5	580.2	77.7	16.4	1.000010
80000.0	28.3	-51.0		44.4	580.7	92.7	17.3	1.000010
80500.0	27.7	-50.6		43.3	581.1	96.4	18.4	1.000010
81000.0	27.0	-50.3		42.3	581.6	87.1	18.5	1.000009
81500.0	26.4	-49.9		41.2	582.0	85.5	17.9	1.000009
82000.0	25.8	-49.6		40.2	582.5	83.7	17.4	1.000009
82500.0	25.2	-49.2		39.7	583.0	80.9	16.7	1.000009
83000.0	24.7	-48.9		39.3	583.6	78.7	15.8	1.000009

STATION ALTITUDE 3997.30 FEET MSL
 10 APR. 84 1000 HRS MST
 ASCENSION NO. 16

UPPER AIR DATA
 1710060016
 C W R

GEODETIC COORDINATES
 32.68036 LAT DEG
 106.42307 LONG DEG

TABLE 11 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
83500.0	24.1	-48.5		37.4	583.9	72.2	15.0	1.000008
84000.0	23.6	-48.1		36.5	584.4	68.7	14.6	1.000008
84500.0	23.0	-47.8		35.5	584.8	70.7	14.7	1.000008
85000.0	22.5	-47.4		34.7	585.3	71.8	14.9	1.000008
85500.0	22.0	-47.1		33.9	585.8	73.2	15.1	1.000008
86000.0	21.5	-46.7		33.1	586.2	78.0	15.8	1.000007
86500.0	21.0	-46.4		32.3	586.7	82.8	15.7	1.000007
87000.0	20.5	-46.0		31.5	587.2	87.1	17.7	1.000007
87500.0	20.1	-45.6		30.7	587.6	91.1	18.2	1.000007
88000.0	19.6	-45.0		29.9	588.4	95.2	18.1	1.000007
88500.0	19.2	-44.3		29.2	589.3	99.2	18.1	1.000006
89000.0	18.8	-43.6		28.5	590.2	103.4	18.3	1.000006
89500.0	18.3	-42.9		27.7	591.1	104.2	17.8	1.000006
90000.0	17.9	-42.3		27.1	592.0	105.2	17.2	1.000006
90500.0	17.5	-41.6		26.4	592.9	106.4	15.7	1.000006
91000.0	17.1	-40.9		25.7	593.7	105.5	16.7	1.000006
91500.0	16.8	-40.7		25.1	593.9	103.0	17.2	1.000006
92000.0	16.4	-40.7		24.5	594.0	100.2	17.7	1.000005
92500.0	16.0	-40.6		24.0	594.1			1.000005
93000.0	15.7	-40.5		23.5	594.2			1.000005
93500.0	15.3	-40.5		23.0	594.3			1.000005
94000.0	15.0	-40.4		22.5	594.3			1.000005
94500.0	14.7	-40.3		22.0	594.4			1.000005

STATION ALTITUDE 3097.30 FEET MSL
10 APR. 84 1000 HRS MST
ASCENSION NO. 16

MANDATORY LEVELS
101000016
C M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42337 LON DEG

TABLE 12

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
950.0	4893.	10.5	-13.5	17.	31.9	9.4
800.0	6534.	5.2	-15.0	19.	355.7	4.3
750.0	8255.	2.4	-18.7	19.	298.3	18.1
700.0	10085.	5.8	-18.8	15.	317.4	11.7
650.0	12070.	3.8	-16.7	21.	332.1	36.1
600.0	14184.	-0.3	-20.6	20.	324.0	40.7
550.0	16451.	-4.8	-25.0	19.	319.2	44.4
500.0	18987.	-10.1	-29.3	19.	317.7	41.5
450.0	21522.	-15.2	-33.7	20.	324.5	40.5
400.0	24385.	-24.4	-38.3	26.	321.7	44.4
350.0	27523.	-32.9	-44.0	32.	318.8	43.5
300.0	31018.	-41.2			320.1	49.1
250.0	34995.	-51.2			319.4	54.3
200.0	39624.	-63.0			312.3	67.9
175.0	42297.	-65.6			295.2	45.1
150.0	45369.	-64.2			293.0	46.5
125.0	49006.	-65.1			279.5	23.7
100.0	53500.	-61.9			269.5	26.1
80.0	58007.	-62.0			284.6	21.0
70.0	60736.	-62.7			149.4	6.2
60.0	63873.	-60.8			156.8	4.7
50.0	67620.	-55.3			176.6	3.3
40.0	72310.	-53.1			75.1	14.4
30.0	78410.	-51.9			77.4	16.1
25.0	82312.	-49.1			79.7	16.4
20.0	87154.	-45.6			91.2	18.2
15.0	93544.	-40.4				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
10 APR. 64 0957 HRS MST
ASCENSION NO. 34

SIGNIFICANT LEVEL DATA
1010510734
JALLEN

GEODETIC COORDINATES
21.15712 LAT DEG
106.49511 LON DEG

TABLE 13

PRESSURE	GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
875.8	4051.0	14.8	-16.5	10.0
865.0	4476.0	13.9	-13.1	14.0
850.0	4907.9	12.1	-	16.0
716.0	9495.5	-0.2	-23.5	17.0
707.4	9877.2	-0.0	-20.5	18.0
700.0	10112.3	3.0	-18.5	16.0
496.6	10262.3	5.2	-19.4	15.0
485.9	10657.2	5.1	-16.1	13.0
470.8	11255.3	6.5	-17.9	22.0
416.8	13435.9	1.4	-20.6	19.0
331.3	15086.2	-4.4	-35.6	23.0
300.0	18949.6	-9.8	-50.8	25.0
400.0	24457.1	-24.3	-	-
163.1	25753.6	-29.7	-	-
116.3	29935.6	-38.2	-	-
700.0	31427.8	-40.8	-	-
350.0	35123.8	-51.0	-	-
113.8	38416.5	-58.9	-	-
705.1	39275.5	-59.0	-	-
700.7	39774.5	-60.1	-	-
175.9	41398.4	-66.0	-	-
168.3	43220.1	-67.1	-	-
137.3	44678.5	-65.7	-	-
150.0	45589.3	-61.8	-	-
139.9	47003.6	-64.3	-	-
123.5	48512.8	-65.3	-	-
119.2	50398.2	-63.1	-	-
114.3	52972.3	-63.9	-	-
100.0	53787.1	-62.2	-	-
98.9	54208.7	-58.2	-	-
30.1	58340.0	-61.1	-	-
70.0	61134.5	-59.4	-	-
61.1	63916.0	-50.9	-	-
57.9	65048.9	-57.7	-	-
54.0	64722.2	-58.7	-	-
50.0	69106.0	-56.1	-	-
43.7	70941.2	-52.1	-	-
30.0	72051.0	-50.0	-	-
26.0	81420.1	-47.9	-	-
20.0	87916.9	-45.1	-	-

GEODETIC COORDINATES
 33.15712 LAT NEG
 106.49511 LON NEG

SIGNIFICANT LEVEL DATA
 1710370034
 JALLEN

STATION ALTITUDE 6751.00 FEET MSL
 TO APC. 84 0950 HRS MST
 ASCENSION NO. 14

TABLE 13 Cont'd

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR	DEWPOINT	
	DEGREES	CENTIGRADE	
12.2 90070.1	-40.2		
14.5 95140.0	-41.6		
10.0 107551.9	-38.2		
9.5 107256.2	-38.7		

UPPER AIR DATA

STATION ALTITUDE 4000.00 FEET MSL
10 APR 64 0000 HRS MST
ASCENSION NO. 74

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 14

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES C	TEMPERATURE D W POINT CENTIGRADE	REL HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
4000.0	876.8	14.6	-16.5	16.0	100.0	651.3	310.0	6.0	1.000244
4500.0	852.7	13.6	-13.1	14.3	104.9	650.0	314.4	5.6	1.000244
5000.0	827.1	11.9	-13.1	16.0	1034.6	658.0	318.5	7.3	1.000241
5500.0	801.5	10.5	-14.1	16.1	1020.2	656.4	321.9	9.1	1.000237
6000.0	776.0	9.2	-15.1	16.2	1006.2	654.9	324.4	8.9	1.000233
6500.0	751.1	7.8	-16.1	16.3	992.4	653.3	327.7	9.7	1.000229
7000.0	726.3	6.5	-17.1	16.5	978.8	651.7	329.5	10.5	1.000226
7500.0	701.8	5.2	-18.2	16.6	965.5	650.1	328.7	10.2	1.000222
8000.0	677.6	3.8	-19.2	16.7	952.3	648.6	327.8	9.9	1.000219
8500.0	653.6	2.5	-20.2	16.8	939.3	647.0	326.2	10.8	1.000215
9000.0	629.9	1.1	-21.2	16.9	926.5	645.4	324.8	12.0	1.000212
9500.0	606.5	-0.2	-22.3	17.0	914.0	643.8	324.6	14.0	1.000209
10000.0	583.0	1.5	-21.6	16.0	891.8	645.8	325.8	22.6	1.000204
10500.0	559.9	5.1	-19.0	15.4	863.0	650.1	326.6	29.2	1.000199
11000.0	537.2	5.9	-17.4	16.7	844.7	651.1	327.4	34.5	1.000196
11500.0	514.7	5.9	-16.2	18.4	828.8	651.1	328.2	35.9	1.000193
12000.0	492.3	4.6	-16.6	19.3	814.8	649.8	329.0	37.9	1.000190
12500.0	470.2	3.7	-17.0	20.2	805.0	648.5	329.5	38.5	1.000187
13000.0	448.4	2.5	-17.5	21.1	793.3	647.1	330.0	39.2	1.000184
13500.0	426.7	1.4	-18.0	22.0	781.8	645.8	329.0	40.1	1.000182
14000.0	405.1	0.5	-18.8	21.3	769.8	645.1	329.6	41.4	1.000178
14500.0	383.8	0.2	-19.6	20.7	756.0	644.4	328.2	43.0	1.000175
15000.0	362.6	-0.4	-20.5	20.0	743.6	643.7	326.4	45.1	1.000172
15500.0	341.4	-1.5	-21.6	19.9	731.3	642.3	323.2	46.1	1.000169
16000.0	320.5	-2.7	-22.6	19.8	721.5	640.9	319.0	45.2	1.000166
16500.0	299.7	-3.9	-23.7	19.6	710.9	639.4	316.4	45.1	1.000163
17000.0	279.2	-5.1	-24.8	19.5	700.4	638.0	313.2	45.2	1.000160
17500.0	258.9	-6.3	-25.9	19.4	690.1	636.5	314.1	47.1	1.000158
18000.0	238.7	-7.5	-27.0	19.2	680.0	635.1	314.0	48.0	1.000155
18500.0	218.8	-8.7	-28.0	19.1	670.0	633.6	317.4	48.2	1.000153
19000.0	199.0	-9.9	-29.0	19.1	660.1	632.2	320.4	48.5	1.000150
19500.0	179.3	-11.2	-29.4	20.5	650.1	630.6	322.0	48.7	1.000148
20000.0	159.7	-12.6	-29.9	21.9	640.3	629.0	323.4	48.8	1.000145
20500.0	140.2	-13.9	-30.4	23.2	630.7	627.4	321.5	48.4	1.000143
21000.0	120.8	-15.2	-30.9	24.6	621.2	625.8	319.0	47.8	1.000141
21500.0	101.5	-16.5	-31.5	25.9	611.9	624.2	316.8	48.5	1.000139
22000.0	82.1	-17.6	-32.1	27.3	602.7	622.5	320.7	49.6	1.000137
22500.0	62.8	-19.1	-32.6	28.7	593.7	621.0	320.0	50.8	1.000134
23000.0	43.5	-20.5	-33.4	30.0	584.8	619.4	321.1	50.7	1.000132
23500.0	24.2	-21.8	-34.2	31.4	574.1	617.8	321.0	50.0	1.000130

STATION ALTITUDE 6751.00 FEET MSL
 10 MPH. 94
 ASCENSION DEG. 74

UPPER AIR DATA
 1010070036
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT NEG
 106.49511 LON NEG

TABLE 14 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
24000.0	407.5	-23.1	72.8	567.5	616.1	321.7	49.2	1.000178
24500.0	399.3	-24.4	72.6	559.0	614.5	321.6	48.8	1.000176
25000.0	391.0	-25.6	71.4	550.0	613.1	322.1	48.0	1.000174
25500.0	382.8	-26.8	70.0	541.1	611.6	322.7	49.5	1.000172
26000.0	374.8	-27.9	68.6	532.6	610.1	323.3	50.2	1.000170
26500.0	367.0	-29.1	64.2	523.8	608.6	324.0	50.1	1.000168
27000.0	359.2	-30.4	63.2	515.4	607.1	324.7	49.9	1.000166
27500.0	351.5	-31.7	62.5	507.1	605.4	324.7	49.9	1.000164
28000.0	344.0	-33.0	63.8	499.0	603.7	324.6	50.0	1.000162
28500.0	336.6	-34.4	64.1	491.1	602.0	324.2	50.4	1.000160
29000.0	329.4	-35.7	64.4	483.2	600.3	323.8	50.8	1.000158
29500.0	322.3	-37.0	64.7	475.5	598.6	323.5	51.3	1.000156
30000.0	315.4	-38.3	63.7**	467.9	597.0	323.5	52.0	1.000154
30500.0	308.5	-39.4	63.2**	459.8	595.6	323.7	52.7	1.000153
31000.0	301.7	-40.5	62.7**	451.9	594.2	322.6	53.4	1.000151
31500.0	294.9	-41.8		444.0	592.6	322.7	54.3	1.000149
32000.0	288.3	-43.0		436.4	591.0	321.9	55.4	1.000147
32500.0	281.9	-44.3		429.0	589.3	321.4	56.7	1.000145
33000.0	275.4	-45.5		421.5	587.7	321.1	59.0	1.000144
33500.0	269.2	-46.9		414.5	586.0	320.7	62.9	1.000142
34000.0	263.2	-48.1		407.4	584.4	320.0	64.8	1.000141
34500.0	257.2	-49.4		400.5	582.7	319.4	65.3	1.000139
35000.0	251.4	-50.7		393.7	581.1	318.8	65.3	1.000138
35500.0	245.6	-51.9		386.7	579.5	318.4	66.8	1.000136
36000.0	239.8	-53.1		379.5	577.9	318.2	67.0	1.000135
36500.0	234.2	-54.3		372.8	576.3	318.2	69.6	1.000133
37000.0	228.7	-55.5		366.0	574.7	318.2	71.5	1.000132
37500.0	223.3	-56.7		359.4	573.2	318.1	69.3	1.000130
38000.0	218.1	-57.9		352.9	571.6	317.9	67.1	1.000129
38500.0	212.9	-59.9		346.3	570.2	317.4	61.2	1.000127
39000.0	207.9	-59.0		339.1	570.1	316.7	55.0	1.000125
39500.0	203.9	-59.5		330.8	569.5	314.4	50.9	1.000124
40000.0	198.9	-60.6		324.4	568.0	311.7	47.6	1.000122
40500.0	193.2	-61.7		318.2	566.5	307.7	45.5	1.000121
41000.0	188.3	-62.8		312.2	565.0	304.3	47.7	1.000120
41500.0	183.9	-64.0		306.2	563.5	301.2	48.9	1.000118
42000.0	179.4	-65.1		300.4	561.9	300.0	49.4	1.000117
42500.0	175.0	-66.1		294.5	560.5	298.7	50.3	1.000116
43000.0	170.7	-66.3		288.1	559.6	294.1	50.2	1.000114
43500.0	166.4	-65.8		281.0	559.5	297.5	50.0	1.000113

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

UPPER AIR DATA

1010030034

JALLEN

TABLE 14 Cont'd

STATION ALTITUDE 4051.00 FEET MSL
10 APR. 60
0950 WRF MST
ASCENSION NO. 34

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	WET-BULB PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TY)	SPEED KNOTS	INDEX OF REFRACTION
44000.0	162.3	-45.0		273.4	560.3	297.7	52.0	1.000041
44500.0	158.3	-45.0		266.0	560.9	297.0	54.1	1.000039
45000.0	154.4	-46.2		257.5	563.2	297.2	57.0	1.000037
45500.0	150.7	-42.2		249.9	565.9	297.7	59.6	1.000035
46000.0	147.0	-42.5		243.1	565.4	297.4	58.1	1.000034
46500.0	143.4	-43.4		239.2	564.2	297.4	56.6	1.000033
47000.0	139.9	-64.3		233.4	563.0	297.8	52.5	1.000032
47500.0	136.5	-64.5		227.9	562.7	298.4	48.3	1.000031
48000.0	133.1	-64.7		222.5	562.5	298.5	45.9	1.000030
48500.0	129.9	-64.9		217.3	562.2	298.4	43.8	1.000028
49000.0	126.7	-65.1		212.1	561.9	297.2	42.1	1.000047
49500.0	123.5	-65.3		207.1	561.7	295.1	40.7	1.000036
50000.0	120.6	-66.1		200.9	563.3	292.0	39.0	1.000045
50500.0	117.6	-63.1		195.1	564.6	287.4	36.9	1.000043
51000.0	114.7	-63.5		190.5	564.4	282.3	35.2	1.000042
51500.0	111.9	-63.6		186.0	564.2	277.7	34.1	1.000041
52000.0	109.2	-63.6		181.5	563.9	272.7	33.3	1.000040
52500.0	106.6	-63.8		177.3	563.7	271.5	32.9	1.000039
53000.0	104.0	-63.8		173.0	563.7	270.7	32.6	1.000039
53500.0	101.4	-62.9		167.9	565.1	271.0	31.5	1.000037
54000.0	99.0	-61.8		161.2	566.3	271.7	30.4	1.000036
54500.0	96.6	-61.0		158.5	567.4	271.0	28.2	1.000035
55000.0	94.3	-60.2		154.2	568.5	269.9	25.8	1.000034
55500.0	92.0	-59.4		149.9	569.6	264.8	22.6	1.000033
56000.0	89.8	-58.5		145.8	570.7	256.4	19.4	1.000032
56500.0	87.7	-58.6		142.3	570.6	247.7	15.9	1.000032
57000.0	85.6	-59.3		139.3	569.7	238.1	15.0	1.000031
57500.0	83.5	-59.3		136.4	568.9	229.4	13.6	1.000030
58000.0	81.5	-60.3		133.4	568.0	229.7	12.2	1.000030
58500.0	79.6	-61.0		131.5	567.4	229.7	10.8	1.000029
59000.0	77.6	-60.7		127.3	567.8	227.4	9.3	1.000028
59500.0	75.8	-60.4		124.1	568.2	208.0	8.2	1.000028
60000.0	74.0	-60.1		120.9	568.6	190.0	7.6	1.000027
60500.0	72.2	-59.6		117.3	569.1	169.0	7.6	1.000026
61000.0	70.5	-59.5		114.0	569.5	155.0	8.4	1.000025
61500.0	68.9	-59.6		111.2	569.3	141.8	8.5	1.000025
62000.0	67.1	-59.9		107.4	569.0	140.1	8.7	1.000024
62500.0	65.5	-60.1		103.1	568.6	137.3	9.1	1.000024
63000.0	63.9	-60.5		100.7	568.2	134.9	9.4	1.000023
63500.0	62.4	-60.7		100.3	567.9	134.0	10.4	1.000023

STATION ALTITUDE 4751.00 FEET MSL
 10 APR 54
 ASCENSION NO. 34

UPPER AIR DATA
 12100'0034
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT NEG
 136.49511 LONG NEG

TABLE 14 Cont'd

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY CM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
5450.0	40.9	-40.7		99.9	567.5	133.2	11.6	1.000022
5450.0	40.5	-49.3		94.8	569.7	144.9	12.4	1.000022
5450.0	40.0	-57.8		93.9	571.6	159.7	13.9	1.000021
5450.0	39.7	-58.0		91.8	571.4	167.3	15.0	1.000020
5450.0	39.3	-59.4		89.7	570.9	172.0	14.7	1.000020
5450.0	34.0	-58.6		87.7	570.7	176.5	14.3	1.000020
5450.0	32.7	-57.8		85.3	571.7	167.9	12.0	1.000019
5450.0	31.5	-57.0		83.0	572.7	155.6	10.0	1.000018
5450.0	30.3	-56.0		80.7	573.7	153.5	8.3	1.000018
5450.0	29.1	-55.5		78.6	574.7	159.4	5.7	1.000017
5450.0	27.9	-54.6		76.5	575.6	163.3	5.2	1.000017
5450.0	26.8	-54.1		74.5	576.5	152.7	4.1	1.000017
5450.0	25.7	-53.4		72.5	577.4	135.4	3.2	1.000016
5450.0	24.7	-52.7		70.6	578.4	100.5	4.6	1.000016
5450.0	23.6	-52.1		68.7	579.2	84.4	7.1	1.000015
5450.0	22.6	-52.0		67.1	579.6	77.1	9.5	1.000015
5450.0	21.6	-51.0		65.5	579.5	71.7	10.5	1.000015
5450.0	20.7	-51.7		64.0	579.7	66.5	11.6	1.000014
5450.0	19.7	-51.5		62.5	579.9	65.9	13.1	1.000014
5450.0	18.8	-51.4		61.0	580.1	68.0	14.8	1.000014
5450.0	17.9	-51.3		59.6	580.2	69.6	15.5	1.000013
5450.0	17.1	-51.1		58.2	580.6	77.5	18.1	1.000013
5450.0	16.2	-51.1		54.9	580.6	85.0	20.1	1.000013
5450.0	15.4	-50.9		55.5	580.8	90.5	21.8	1.000012
5450.0	14.6	-50.0		54.2	580.9	93.3	21.8	1.000012
5450.0	13.8	-50.7		52.9	581.1	96.0	21.9	1.000012
5450.0	13.0	-50.5		51.6	581.3	95.7	21.1	1.000011
5450.0	12.2	-50.4		50.6	581.6	92.3	19.5	1.000011
5450.0	11.5	-50.0		49.2	581.6	88.3	18.1	1.000011
5450.0	10.8	-50.1		48.1	581.8	87.0	18.2	1.000011
5450.0	10.1	-50.0		44.9	581.9	86.7	18.0	1.000010
5450.0	9.4	-49.6		45.8	582.5	84.4	19.6	1.000010
5450.0	8.7	-49.2		44.7	583.1	87.5	20.0	1.000010
5450.0	8.0	-49.7		43.6	583.6	88.8	20.3	1.000010
5450.0	7.4	-49.0		42.5	584.2	90.1	20.7	1.000009
5450.0	6.8	-48.0		41.6	584.7	95.3	20.8	1.000009
5450.0	6.2	-47.7		40.5	584.9	100.0	21.0	1.000009
5450.0	5.6	-47.6		39.6	585.1	104.4	21.5	1.000009
5450.0	5.0	-47.0		38.4	585.3	106.4	23.0	1.000009
5450.0	4.4	-47.3		37.7	585.6	108.0	26.3	1.000009

STATION ALTITUDE 4051.00 FEET MSL
 10 APR 54 0900 HRS MGT
 ASCENSION NO. 34

UPPER AIR DATA
 101700Z0354
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49533 LON DEG

TABLE 14 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE WILLIAMS	TEMPERATURE AIR DEGREES CENTIGRADE	REFLUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA DIRECTION DEGREES(TV)	SPEED KNOTS	INDEX OF REFRACTION
					KNOTS	KNOTS			
5000.0	23.9	-47.0		34.9	585.6		108.9	28.2	1.000005
4950.0	23.4	-47.0		34.9	585.8		108.4	27.5	1.000005
4900.0	22.8	-46.9		34.7	586.0		107.8	25.7	1.000006
4850.0	22.3	-46.8		34.4	586.2		106.9	25.8	1.000006
4800.0	21.8	-46.8		33.6	586.3		104.9	24.5	1.000007
4750.0	21.3	-46.5		32.8	586.5		102.7	23.2	1.000007
4700.0	20.7	-46.4		32.0	586.7		101.0	22.2	1.000007
4650.0	20.2	-46.2		31.8	586.9		100.8	22.0	1.000007
4600.0	19.7	-46.9		30.5	587.3		100.4	21.7	1.000007
4550.0	19.5	-46.3		29.7	589.1		100.7	21.1	1.000007
4500.0	19.1	-43.1		29.8	590.9		101.4	19.0	1.000006
4450.0	18.6	-41.7		29.0	592.7		102.4	18.7	1.000006
4400.0	18.2	-40.3		27.2	594.5		103.5	17.7	1.000006
4350.0	17.3	-40.5		26.2	594.4		103.7	17.1	1.000006
4300.0	17.4	-40.5		26.1	594.3		103.0	16.5	1.000006
4250.0	17.0	-40.6		25.5	594.1		104.1	15.9	1.000006
4200.0	16.7	-40.7		25.0	593.9		104.4	15.3	1.000006
4150.0	16.3	-40.9		24.5	593.7		104.8	14.6	1.000005
4100.0	15.9	-41.0		23.9	593.6		105.7	14.0	1.000005
4050.0	15.6	-41.2		23.4	593.4		106.4	13.7	1.000005
4000.0	15.3	-41.3		22.9	593.2		107.9	13.5	1.000005
3950.0	14.9	-41.4		22.6	593.0		109.4	13.4	1.000005
3900.0	14.5	-41.6		21.9	592.9		110.7	13.1	1.000005
3850.0	14.2	-41.5		21.5	593.0		111.7	12.5	1.000005
3800.0	13.8	-41.3		21.0	593.3		112.7	11.9	1.000005
3750.0	13.7	-41.1		20.5	593.5		112.4	10.8	1.000005
3700.0	13.4	-40.9		20.0	593.8		102.7	7.8	1.000004
3650.0	13.1	-40.6		19.5	594.0		82.4	5.2	1.000004
3600.0	12.8	-40.4		19.1	594.3		43.0	4.0	1.000004
3550.0	12.5	-40.2		18.7	594.5		30.5	4.5	1.000004
3500.0	12.2	-40.0		18.3	594.8		27.4	5.0	1.000004
3450.0	12.0	-39.9		17.9	595.1		17.0	5.3	1.000004
3400.0	11.7	-39.6		17.5	595.3		24.6	5.1	1.000004
3350.0	11.5	-39.4		17.1	595.6		42.4	4.5	1.000004
3300.0	11.3	-39.2		16.7	595.8		57.9	4.4	1.000004
3250.0	11.0	-39.0		16.3	596.1		63.9	4.5	1.000004
3200.0	10.7	-38.8		15.9	596.4		45.0	4.5	1.000004
3150.0	10.3	-38.5		15.6	596.6		30.7	4.9	1.000003
3100.0	10.0	-38.3		15.2	596.9		17.1	5.4	1.000003
3050.0	9.7	-38.2		14.9	597.1		75.2	7.7	1.000003

UPPER AIR DATA
 1010000354
 JALLER

STATION ALTITUDE 4051.00 FEET MSL
 13 APR 64
 0950 HRS
 ASCENDING NO. 14

GEODETTIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

TABLE 14 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
12000.0	9.3	-13.3		14.5	597.1	340.1	10.4	1.000003
12500.0	9.5	-13.3		14.2	597.0	332.8	13.3	1.000003
13000.0	9.4	-13.4		13.9	596.9			1.000003
13500.0	9.2	-13.5		13.5	596.8			1.000003
14000.0	9.0	-13.5		13.3	596.7			1.000003
14500.0	8.8	-13.6		13.1	596.6			1.000003
15000.0	8.6	-13.7		12.8	596.5			1.000003

GEODETIC COORDINATES
 37.16712 LAT NEG
 106.42511 LONG NEG

1504.62511 LON NEG

• 730 •

IN THE INTERPRETATION.